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Bulletin 840

February 1977

Mississippi Counties: Some Social and Economic Aspects

By Ellen S. Bryant
and
Joanne Clarke

MAFES

MISSISSIPPI AGRICULTURAL &
FORESTRY EXPERIMENT STATION
James H. Anderson, Director
Mississippi State University, Mississippi State, MS 39762

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Mississippi Counties: Some Social and Economic Aspects

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Preface

This is the fourth edition of *Mississippi Counties: Some Social and Economic Aspects* to be published by the Department of Sociology, Mississippi Agricultural and Forestry Experiment Station. The first two presented largely 1950 data; the third gave data chiefly for 1960. This new edition is based upon 1970 data. The Sociology Department at this University receives requests that are sufficiently frequent to indicate a continuing need for selected demographic data for all 82 counties of the state. This publication is a continuing effort to meet this need.

Selection of the kinds of data to be included has been guided by the types of data usually requested, the compilers' notion of the kinds of data that would be helpful to the people likely to use this volume, and the extent to which data are easily available from other sources. Therefore, the coverage has changed some from the earlier editions. For this edition, it was decided (1) to avoid overlapping data already available in the *Mississippi Statistical Abstract,* published by the College of Business and Industry of Mississippi State University and (2) to take advantage of the details on subpopulations that are available from the computer-readable *Summary Tapes of the 1970 Censuses of Population and Housing,* but not from the printed reports from the Bureau of the Census. Thus, much of the data reported here has not been previously reported or published.

It is hoped that the data presented here will meet the needs of county agents and extension home economists, public administrators, business persons, chambers of commerce, public service agencies, journalists, teachers, social researchers, and many others who need information about Mississippi's counties. While the figures given have been checked and rechecked for accuracy, it is possible that some errors may have slipped into print. If the user identifies or suspects a discrepancy, the Department of Sociology would appreciate being informed. Other reactions concerning the usefulness of these data will also be welcomed.

The compilers wish to express their appreciation to two persons who worked painstakingly in the production of these tabulations. Making outstanding contributions have been Dotty Estapa who programmed the computer computations of the data, and Emily Chaney who not only copied, computed, and checked data, but also accomplished the tedious task of setting up tabular headings.

The primary purpose of this report is to provide detailed county data for the local user of population statistics. To extensively point out small area variations would make cumbersome reading and would reduce the continuity of thought in the overview that follows. The user will need to make local comparisons. The overview that follows is intended as a guide for facilitating such comparisons.

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Mississippi Counties: Some Social and Economic Aspects

This volume has two main purposes: (1) to assemble in one publication a wide range of social, economic, educational, and labor force statistics, and (2) to facilitate comparisons of these various measures between counties.

Discussion of the data is grouped into six sections. Tabular summaries are included for the State and the Nation and usually for the South and the East South Central Census Division.* Summaries were occasionally omitted when they were either unavailable or extremely difficult to obtain. Almost all of the tables include data for the total county population and for the white and black components of the population. All tables were designed to be self explanatory and any irregularities in the data are explained in the table footnotes.

Size and Distribution of Population and Components of Population Change

Population growth is a relatively recent phenomenon in Mississippi. The total number of residents remained virtually unchanged from 1940 to 1960. From 1960 to 1970, however, the state's population grew by 1.8 percent. It is estimated that the rate of growth has accelerated since 1970, bringing an increase of 4.8 percent to the State's population during the four-year period. Estimated population figures can be found in Table 1 and census counts and percentages of change can be found in Tables 2 and 3.

Race, place of residence and density figures for the population (based on corrected farm population data) reveal that the 1960 to 1970 population gain in Mississippi was made up entirely of white persons** and that the percentage of the population of Mississippi, the South and the East South Central Regions that live in rural areas, both farm and nonfarm, is greater than the national average. *Furthermore, they document the most significant trend in the Nation's population in recent decades---that of movement out of agriculture (Tables 2-5).*

The depicted farm to nonfarm movement of the last two decades was most intense in Mississippi and the South, but was still pronounced at the national level (Table 3). A relative late-comer to the urbanization trend, Mississippi still has a larger proportion of its population living on farms than do the South and the Nation; however, the percentage gap was a mere 5 points in 1970 as compared to 35 points in 1950 (Table 4).

Nearly all counties in Mississippi experienced a large decrease in farm population throughout the twenty-year period. However, in a few counties, most of the loss occurred between 1960 and 1970---for instance, among Bolivar County nonwhites. Two Mississippi counties experienced gains in farm population from 1960 to 1970---whites in Jefferson County and whites and nonwhites in Warren County.

The population density of Mississippi, which was above the national average in 1950, increased only slightly from 1950 to 1970. During the same period, however, the Nation, the South and the East South Central Regions experienced population gains that pushed the number of persons per square mile well above the Mississippi figure (Table 4).

Migration data (Tables 6,7, and 8) largely explain the differential population growth patterns in Mississippi between 1960 and 1970. The State's net migration loss for this period consisted entirely of nonwhites, although other areas of the South suffered a net loss of both whites and blacks. The white population of the State grew both from retention of its natural increase and from inmovement. This in-

**The South consists of Texas, Oklahoma, Arkansas, Louisiana, Kentucky, Tennessee, Mississippi, Alabama, Georgia, Florida, North Carolina, South Carolina, Virginia, West Virginia, District of Columbia, Maryland, and Delaware; and the East South Central consists of Mississippi, Alabama, Tennessee and Kentucky.*

***The Negro Group, which made up 37 percent of the state's population in 1970, is the only numerically significant racial minority population in Mississippi. Other minorities add up to a small fraction of one percent---about one-fourth of their proportion at the national level. American Indians are better represented in Mississippi---about one half of the National proportion.*

dicates that migration may be reversing its direction, at least for some of the populations in the State, particularly since migration seems to have slowed in the last half of the decade. In terms of net population movement in the second half of the 1960's, neither Mississippi nor the South differ outstandingly from the Nation.

Age, Family and Marital Characteristics

While age distributions are not dramatically different for the areas tabulated, the age of nonwhites in Mississippi in 1970 was lower than that of nonwhites in other regions (Table 9). The median age of Mississippi's nonwhites would have been even lower had it not been for the large proportion of aged in the group. The high proportions at both ends of the life span result in a disproportionately small number of people in the major working ages (20-44 years). *This abnormal distribution results in very high dependency ratios for Mississippi's nonwhites (Table 10).*

The ratio of divorces to marriages was higher in Mississippi (.364) in 1970 than it was in the East South Central Division (.330), the South (.351) and the Nation (.327). The ratio for whites was particularly high. Birth and death rates are only slightly higher for Mississippi and the South than for the Nation, but vary sizeably among Mississippi's counties (Table 11). Most of the differences are explained by differences in the age composition of the populations of the counties.

Distribution of the population by household type and marital status in 1970 differed importantly by race but differed only slightly by region (Tables 12 and 13). The proportion of Negroes classified as "Now Married" was substantially smaller than that of non-Negroes. Also, the proportions for the categories "Separated" and "Never Married" were higher for Negroes than for non-Negroes. These differences are explained in part by the lower average age of the Negro population and by the generally lower socio-economic status of Negroes.

The fertility ratios were higher for Negroes than for whites in all areas tabulated and the highest ratio was reported for Mississippi (Table 14). The average number of persons per household was larger for Negroes than for whites in all regions and was largest in Mississippi.

Education

Mississippi and the East South Central Region had a smaller percentage of the white population enrolled in school than was found in the Nation or the Southern Region (Table 15). This was so for whites in all age groups but was different for Negroes. In many of the age categories, the proportion of Negroes enrolled in school was higher in Mississippi than in the other areas. These enrollment data suggest that the regional differences in educational achievement of Negroes (Table 16) may be a temporary phenomenon.

Public school enrollment in 1970 did not vary extensively either by area or by race (Table 17). The proportions of the population with vocational training and veteran status were much higher for areas other than Mississippi and the East South Central Region. The proportion of whites with veteran status was significantly higher than that for Negroes in all areas.

Economic Characteristics

Aggregate income of Mississippi is given by source of income in Table 18. Comparing incomes of persons and families in other areas (Table 19-21) reveals that, regardless of the type of income data used for comparison, Mississippi ranks lower than the other areas---and the differential is greater for Negroes than for whites. However, there are substantial variations within Mississippi and incomes in a few counties reach the national levels. Differences by sex are sizeable for all areas, but especially so in Mississippi.

Age distributions of the labor force are fairly uniform for all of the areas. However, in Mississippi, the oldest group had a slightly larger proportion than did the other areas; the two youngest groups, slightly smaller proportions (Table 22). The male to female ratio of the Negro labor force was noticeably lower than for whites in all areas, and some counties in Mississippi actually had an equal number of each sex in their Negro labor force (Table 23.) Labor force participation by both Negroes and whites was higher for males than for females in all areas (Table 2). The participation rates for both males and females generally were lower in Mississippi than in the other areas. Even though more of Mississippi's labor force was in the oldest category, the proportion of Mississippi's aged that were

work was not quite as high as in the Nation as a whole.

The East South Central Region and Mississippi had lower percentages of their employed persons employed in white collar jobs and considerably high percentages employed in farming and blue collar jobs than did the other areas (Table 25). In all areas, but especially in Mississippi and the South, Negroes tended to be concentrated in service and operative groups; whites in white collar jobs and crafts. However, variations among the counties in Mississippi were considerable.

Unemployment rates in the United States and Mississippi generally differed only slightly in 1970 (Table 26). However, the rates for Negro females were much higher in Mississippi, where the rate reached 30 percent in one county and was above 20 percent in a few counties.

The distribution of employed persons by industry groups varied only slightly among the areas tabulated (Table 27). There was, however, one notable exception---relatively higher percentages of females and Negroes were employed in private households in the East South Central Region and in Mississippi.

The increase in numbers of business establishments from 1968 to 1972 was relatively greater in Mississippi than in the United States (Table 28). Both Mississippi and the Nation, however, experienced a loss in numbers of agricultural business units during the period. The only industry where Mississippi's growth lagged that of the Nation was manufacturing. Employment by type of business establishment paralled the pattern of growth in numbers of businesses (Table 29).

Housing

The number of rural housing units exceeded the number of urban units in Mississippi in 1970. In contrast, the occupied and vacant urban housing units in the United States both far outnumbered rural units in that year (Table 30). More whites, both in Mississippi and nationwide, lived in owned units than in rented housing units in 1970. More Negroes, on the other hand, lived in rented units (Table 31).

Crowded housing in the United States was much more prevalent among Negroes than among non-Negroes in 1970 (Table 32) but was more pronounced in Mississippi. The percentage of Negro housing units with more than 1.51 persons per room was almost three times as great in Mississippi as it was for the Nation. Similar differences existed in housing size, value of housing and the presence of piped water, bathroom facilities and kitchen facilities---all indicating a much lower level of living for Mississippi Negroes (Tables 33-37). Significantly, rural housing of Negroes everywhere in the Nation was relatively poor.

Agriculture

Data for agriculture (1964 and 1969) were taken almost entirely from the 1969 Census of Agriculture. Our intention was to present trends in the general characteristics of farms and farm populations rather than to provide data for an analysis of the farming sector of the economy.

The number of farms and farmers (Table 38) and the total farm population (Table 39)* declined in all areas. Data from the 1964 Census of Agriculture fit neatly into the trend revealed by the Census of Population data for the beginning and end of the decade. It appears that the loss of farm population accelerated after mid-decade when the minimum wage was applied to agriculture. The loss of farm population was greater for Mississippi than for the United States and the other regions.

The typical farm operator in 1969 was less likely to be a tenant, more likely to be older, less likely to be black and more likely to work off-farm 100 days or more than in 1964 (Tables 40 and 41). Mississippi experienced the largest decrease in the proportion of farmers that were tenants, and the proportion of Mississippi's farmers working off-farm 100 days or more exceeded the national average. Farm operators in Mississippi were employed in a number of types of industries. While employment in agriculture, forestry and fisheries predominated, only slightly more than one third were so employed (Table 42).**

The percentage of the Nation's land that was in farms decreased

**Table 39 combines data from the agricultural and population censuses. Because of differences in the ways that these censuses are taken, comparability of data cannot be firmly established. Therefore, care needs to be exercised in reaching conclusions based on the mid-decade figures.*

***Data for Table 42 were complied from the population censuses and describe the whole population residing on farms rather than farmers only.*

slightly between 1964 and 1969 (Table 43). The average size of farm increased slightly and the per acre value of farm land and buildings increased sharply. Of the areas tabulated, only Mississippi failed to record an increase in value of farm products sold.

Farming in the United States became more commercialized in the five-year period, as evidenced by the large increase in the proportion of farms that were Commercial Classes 1 through 5 (Table 44). However, the total number of these classes of farms decreased, resulting in a decline in the use of selected items of equipment and labor (Table 45). Mississippi still had the highest proportion of retirement farms, with little change in the proportions reported for 1964 and 1969.

The percentage of farms with sales of $20,000 or more increased for all areas tabulated (Table 46). Mississippi experienced a 4.2 per cent increase in the number o farms with sales of $40,000 an over. The number of farms earnin income predominantly from cot ton, poultry and dairy productio decreased (Table 47). Recreationa services brought income to 10 pe cent more farms on the nationa level in 1969 than in 1964 but, i Mississippi, the number of farm earning income from this sourc doubled (Table 48).

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TABLE 1.-ESTIMATED POPULATION OF THE UNITED STATES, THE EAST SOUTH CENTRAL STATES MISSISSIPPI AND MISSISSIPPI BY COUNTIES, SELECTED YEARS, WITH COMPARISONS.

Area	1974(1)	1973	Estimated 1970-1974 Percent(1) Change	Migration	Area	1974(1)	1973	Estimated 1970-1974 Percent(1) Change	Migration
United States	212,652,000	211,096,000	4.6	---	Lee	49,900	49,200	8.1	3.5
E.S.C. States(2)	---	13,288,000(1)	3.8(3)	---	Leflore	40,300	41,100	-4.3	-8.9
Mississippi	2,324,000	2,317,000	4.8	0.4	Lincoln	26,600	26,900	1.5	-2.8
Adams	37,400	37,400	0.3	-4.1	Lowndes	53,700	53,800	8.0	2.0
Alcorn	28,700	28,300	5.6	3.2	Madison	31,600	32,000	6.3	0.5
Amite	12,900	13,200	-6.3	-8.5	Marion	24,100	23,800	5.4	2.0
Attala	18,400	19,500	-6.0	-8.2	Marshall	27,700	26,800	15.3	9.6
Benton	7,300	7,500	-2.7	-5.2	Monroe	35,200	35,300	3.4	-0.4
Bolivar	48,800	49,500	-1.2	-7.9	Montgomery	13,300	13,500	3.0	0.3
Calhoun	15,200	15,200	3.9	1.8	Neshoba	21,900	21,800	5.3	1.8
Carroll	9,200	9,400	-2.1	-4.5	Newton	19,700	19,400	3.8	1.4
Chickasaw	17,100	17,300	1.8	-1.8	Noxubee	13,200	13,700	-7.6	-11.8
Choctaw	8,200	8,600	-2.8	-3.6	Oktibbeha	31,100	30,400	8.2	3.8
Claiborne	10,100	10,200	0.1	-2.7	Panola	27,800	27,500	3.6	-0.4
Clarke	15,600	15,500	3.7	1.7	Pearl River	27,700	27,600	-0.4	-4.5
Clay	19,400	19,400	3.0	-1.6	Perry	9,600	9,400	5.9	0.9
Coahoma	38,200	39,400	-5.6	-9.6	Pike	33,700	33,300	5.9	3.4
Copiah	25,300	25,400	2.4	-0.4	Pontotoc	18,900	18,400	8.9	7.5
Covington	14,400	14,300	2.8	-0.6	Prentiss	21,300	20,800	5.8	3.4
DeSoto	48,600	45,500	35.4	28.9	Quitman	14,500	15,200	-8.7	-14.5
Forrest	60,500	61,300	4.6	0.8	Rankin	54,500	51,700	24.1	18.6
Franklin	8,000	8,100	0.1	-0.2	Scott	22,200	22,300	3.9	-0.8
George	13,700	13,200	10.0	4.2	Sharkey	8,300	8,600	-7.1	-12.9
Greene	8,500	8,600	-0.5	-5.7	Simpson	20,900	20,800	4.8	1.4
Grenada	20,100	20,000	1.2	-2.6	Smith	14,700	14,400	8.4	4.6
Hancock	18,100	18,000	4.1	1.3	Stone	8,800	8,400	8.6	4.3
Harrison	146,400	145,500	8.8	2.2	Sunflower	35,800	37,000	-3.4	-8.6
Hinds	224,100	222,000	4.2	-0.6	Tallahatchie	18,500	18,800	-4.3	-8.2
Holmes	23,100	22,800	-0.1	-3.7	Tate	21,000	20,400	13.2	8.1
Humphreys	13,900	14,200	-4.8	-8.7	Tippah	17,600	17,300	11.0	7.6
Issaquena	2,200	2,400	-19.6	-23.1	Tishomingo	16,100	15,800	7.8	5.9
Itawamba	17,500	17,700	3.9	1.8	Tunica	10,800	11,400	-8.9	-14.0
Jackson	104,200	103,100	18.4	10.9	Union	20,500	20,600	7.4	4.5
Jasper	16,300	16,300	1.9	-1.6	Walthall	12,400	12,400	-0.8	-3.1
Jefferson	8,800	9,100	5.4	-8.3	Warren	46,100	46,100	2.5	-1.5
Jefferson Davis	13,300	13,100	2.8	-1.0	Washington	70,700	71,100	0.2	-5.7
Jones	58,500	58,600	3.8	1.2	Wayne	17,100	17,000	2.7	-1.2
Kemper	10,400	10,400	1.6	-1.2	Webster	10,200	10,200	1.5	0.5
Lafayette	26,800	26,800	10.8	6.3	Wilkinson	10,300	10,700	-7.2	-10.3
Lamar	17,700	17,100	16.4	12.0	Winston	19,600	19,100	6.5	3.2
Lauderdale	71,000	70,700	5.8	1.3	Yalobusha	12,500	12,600	4.9	2.3
Lawrence	11,400	11,500	2.4	-1.6	Yazoo	26,200	26,700	-4.1	-6.8
Leake	18,000	17,700	5.4	2.8					

(1) Provisional Figures. (2) East South Central States. (3) 1970-1973.

Source: 1974 state and county estimates are prepublication figures from the Federal-State Cooperative Program for Population Estimates, Department of Sociology, Mississippi State University and the U.S. Bureau of the Census, cooperating; to be published in the P-26 Current Population Reports. United States and East South Central estimates are from U. S. Bureau of the Census, Current Population Reports, Series P-26 (Washington, D. C., USGPO), Numbers 76, 83, 84, and 86.

TABLE 2.-POPULATION BY RACE AND PLACE OF RESIDENCE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area	Total	Urban(1)	Rural	
			Nonfarm	Farm
United States				
Total	203,212,877	149,334,020	45,586,707	8,292,150
White	178,107,190	129,069,749	41,260,864	7,776,577
Negro	22,549,815	18,338,421	3,764,285	447,109
Indian	763,594	340,367	375,822	47,405
Filipino	336,731	288,287	44,526	3,918
Japanese	588,324	524,196	50,561	13,567
Chinese	431,583	417,032	13,671	880
Other	435,640	355,968	76,968	2,694
South				
Total	62,793,311	40,550,526	19,271,352	2,971,433
Non-Negro	50,836,256	32,500,501	15,799,466	2,536,309
Negro	11,957,055	8,050,025	3,471,906	435,124
Indian	194,406	89,064	89,424	15,918
Filipino	29,250	27,014	2,124	112
Japanese	28,504	24,460	3,712	332
Chinese	32,462	30,032	2,425	5
E.S.C.(2)				
Total	12,803,563	6,992,130	4,742,956	1,068,477
Non-Negro	10,233,938	5,417,972	3,899,382	916,584
Negro	2,569,625	1,574,158	843,574	151,893
Indian	8,708	3,817	4,431	460
Filipino	1,854	1,516	318	20
Japanese	3,198	2,485	676	37
Chinese	3,636	3,220	416	---
Mississippi				
Total	2,216,912	987,312	1,019,227	210,323
White	1,394,921	653,482	621,471	119,968
Nonwhite	821,991	333,830	397,806	90,355
Indian	4,113	623	---	---
Japanese	461	307	---	---
Chinese	1,441	1,034	---	---
Filipino	475	281	---	---
Hawaiian	110	65	---	---
Korean	184	114	---	---

Area	Total	Urban	Rural	
			Non-Farm	Farm
Adams				
Total	37,293	19,704	17,277	312
White	19,414	9,745	9,553	116
Nonwhite	17,879	9,959	7,724	196
Indian(3)	20	1	---	---
Alcorn				
Total	27,179	11,572	12,651	2,956
White	23,940	9,287	11,855	2,798
Nonwhite	3,239	2,285	796	158
Indian	18	5	---	---
Amite				
Total	13,763	---	10,945	2,818
White	6,821	---	5,336	1,485
Nonwhite	6,942	---	5,609	1,333
Attala				
Total	19,570	7,266	9,108	3,196
White	11,574	4,529	5,180	1,865
Nonwhite	7,996	2,737	3,928	1,331
Indian	25	19	---	---
Benton				
Total	7,505	---	5,638	1,867
White	4,356	---	3,355	1,001
Nonwhite	3,149	---	2,283	866
Bolivar				
Total	49,409	20,786	25,534	3,089
White	19,004	10,682	6,749	1,573
Nonwhite	30,405	10,104	18,785	1,516
Indian	21	5	---	---
Chinese	178	133	---	---
Korean	13	4	---	---
Calhoun				
Total	14,623	---	11,219	3,404
White	10,810	---	8,239	2,571
Nonwhite	3,813	---	2,980	833

(1) Figures given in this table for race and residence subgroups may vary slightly from those found in other publications giving Census figures. This is because this table had to be compiled from several sources and t U.S.Bureau of the Census does not always report consistent figures or categories. Variations result from occasional corrections and from the use of sample rather than complete count data for some kinds of tabulatio Rural Farm and Nonfarm figures (both races) were taken from Tables 134 and 136 and Tables 82 and 142 of the Corrected Versions of the PC(1)-C26 and the PC(1)-C1 Reports, respectively. Urban figures for the State an Counties were taken from the Fourth Count Summary Tape Tab 17. The race and residence figures given for the state and counties add to the same total population and white population figures given in U.S. Bureau of the Census, County and City Data Book, 1972 (Washington, D.C.: USGPO), pp. 258 and 270.

(2) East South Central

(3) Figures for other specific races are given only where they total more than 10 persons; thus, county figu do not add to state figures. Other race figures are included in Nonwhite or Non-Negro Totals. These figure for races other than white and Negro were obtained from the PC(2)-IG Report, Tables 16 and 31, and the PC(2)-IF Report, Table 1.

Table 2.-(continued)

Area	Total	Urban	Rural	
			Nonfarm	Farm
Carroll				
Total	9,397	---	7,399	1,998
White	4,621	---	3,674	947
Nonwhite	4,776	---	3,725	1,051
Chickasaw				
Total	16,805	5,722	8,874	2,209
White	10,825	3,949	5,279	1,607
Nonwhite	5,980	1,773	3,605	602
Choctaw				
Total	8,440	---	6,980	1,460
White	6,074	---	4,971	1,103
Nonwhite	2,366	---	2,009	357
Claiborne				
Total	10,086	2,649	6,069	1,368
White	2,564	946	1,073	545
Nonwhite	7,522	1,703	4,996	823
Clarke				
Total	15,049	2,777	10,803	1,469
White	9,634	1,902	6,557	1,175
Nonwhite	5,415	875	4,246	294
Indian	17	---	---	---
Clay				
Total	18,840	8,513	8,250	2,077
White	9,528	5,028	3,347	1,153
Nonwhite	9,312	3,485	4,903	924
Coahoma				
Total	40,447	21,673	12,919	4,855
White	14,207	9,792	3,353	1,062
Nonwhite	26,240	11,881	10,566	3,793
Chinese	157	106	---	---
Copiah(4)				
Total	24,749	8,660	13,859	2,230
White	12,302	4,277	6,475	1,550
Nonwhite	12,447	4,383	7,384	680
Covington				
Total	14,002	---	11,467	2,535
White	9,437	---	7,500	1,937
Nonwhite	4,565	---	3,967	598
Desoto				
Total	35,885	8,931	23,062	3,892
White	23,261	8,922	12,976	1,363
Nonwhite	12,624	9	10,086	2,529
Chinese	12	---	---	---
Forrest				
Total	57,849	44,952	12,067	830
White	43,537	33,597	9,171	769
Nonwhite	14,312	11,355	2,896	61
Indian	59	36	---	---
Japanese	17	14	---	---
Chinese	22	21	---	---
Filipino	12	7	---	---
Korean	11	11	---	---
Franklin				
Total	8,011	---	7,396	615
White	4,897	---	4,425	472
Nonwhite	3,114	---	2,971	143
George				
Total	12,459	---	11,432	1,027
White	10,997	---	10,000	997
Nonwhite	1,462	---	1,432	30
Greene				
Total	8,545	---	7,423	1,122
White	6,652	---	5,647	1,005
Nonwhite	1,893	---	1,776	117
Grenada				
Total	19,854	9,944	8,905	1,005
White	11,164	5,606	5,013	545
Nonwhite	8,690	4,338	3,892	460
Hancock				
Total	17,387	10,041	6,911	435
White	14,898	8,306	6,157	435
Nonwhite	2,489	1,735	754	---
Indian	11	3	---	---
Harrison				
Total	134,582	111,985	22,078	519
White	111,346	89,944	20,910	492
Nonwhite	23,236	22,041	1,168	27
Indian	136	124	---	---
Japanese	169	151	---	---
Chinese	37	36	---	---
Filipino	178	172	---	---
Hawaiian	33	33	---	---
Korean	25	23	---	---
Hinds				
Total	214,973	180,462	30,625	3,886
White	130,804	113,967	15,297	1,540
Nonwhite	84,169	66,495	15,328	2,346
Indian	144	125	---	---
Japanese	37	34	---	---
Chinese	37	31	---	---
Filipino	18	15	---	---
Holmes				
Total	23,120	5,502	13,941	3,677
White	7,337	2,762	3,662	913
Nonwhite	15,783	2,740	10,279	2,764
Chinese	20	18	---	---
Humphreys				
Total	14,601	3,098	8,253	3,250
White	5,127	1,207	2,740	1,180
Nonwhite	9,474	1,891	5,513	2,070
Indian	10	3	---	---
Chinese	39	8	---	---
Issaquena				
Total	2,737	---	2,038	699
White	1,039	---	622	417
Nonwhite	1,698	---	1,416	282

(4) Corrected counts give the totals for these counties as: Copiah, 24,764; Pike, 31,813; Yazoo, 27,314. These were not used in this table because (a) it was preferred to add to an official state total, and (b) differences are slight.

Table 2.-(continued)

Area	Total	Urban	Rural	
			Nonfarm	Farm
Itawamba				
Total	16,847	2,899	11,621	2,327
White	15,928	2,617	11,083	2,228
Nonwhite	919	282	538	99
Jackson				
Total	87,975	63,028	24,500	447
White	73,638	50,121	23,093	424
Nonwhite	14,337	12,907	1,407	23
Indian	66	48	---	---
Japanese	14	8	---	---
Chinese	11	7	---	---
Filipino	10	8	---	---
Hawaiian	13	7	---	---
Jasper				
Total	15,994	---	13,836	2,158
White	8,571	---	6,997	1,574
Nonwhite	7,423	---	6,839	584
Jefferson				
Total	9,295	---	7,468	1,827
White	2,299	---	1,526	773
Nonwhite	6,996	---	5,942	1,054
Jefferson Davis				
Total	12,936	---	10,234	2,702
White	6,439	---	4,877	1,562
Nonwhite	6,497	---	5,357	1,140
Jones				
Total	56,357	28,788	24,404	3,165
White	42,423	18,735	21,002	2,686
Nonwhite	13,934	10,053	3,402	479
Indian	88	13	---	---
Japanese	14	10	---	---
Filipino	13	4	---	---
Kemper				
Total	10,233	---	6,757	3,476
White	4,437	---	3,115	1,322
Nonwhite	5,796	---	3,642	2,154
Indian	---	131	---	---
Lafayette				
Total	24,181	13,915	8,499	1,767
White	17,339	11,371	4,880	1,088
Nonwhite	6,842	2,544	3,619	679
Chinese	101	101	---	---
Korean	12	10	---	---
Lamar				
Total	15,209	313	13,697	1,199
White	13,196	313	11,706	1,177
Nonwhite	2,013	---	1,991	22
Lauderdale				
Total	67,087	45,083	20,628	1,376
White	46,281	29,920	15,392	969
Nonwhite	20,806	15,163	5,236	407
Indian	65	27	---	---
Japanese	25	17	---	---
Chinese	10	7	---	---
Filipino	119	12	---	---
Korean	10	9	---	---
Lawrence				
Total	11,137	---	9,921	1,216
White	7,553	---	6,579	974
Nonwhite	3,584	---	3,342	242
Leake				
Total	17,085	3,031	10,050	4,004
White	10,376	2,351	5,588	2,437
Nonwhite	6,709	680	4,462	1,567
Indian	535	14	---	---
Lee				
Total	46,148	20,471	22,624	3,053
White	36,586	16,892	17,370	2,324
Nonwhite	9,562	3,579	5,254	729
Leflore				
Total	42,111	22,400	15,671	4,040
White	17,602	11,147	5,474	981
Nonwhite	24,509	11,253	10,197	3,059
Indian	33	18	---	---
Chinese	112	104	---	---
Lincoln				
Total	26,198	10,700	12,556	2,942
White	18,134	6,659	9,149	1,216
Nonwhite	8,064	4,041	3,407	616
Lowndes				
Total	49,700	29,951	16,988	2,761
White	33,398	19,895	11,858	1,645
Nonwhite	16,302	10,056	5,130	1,116
Indian	34	18	---	---
Japanese	19	11	---	---
Chinese	17	12	---	---
Filipino	13	10	---	---
Madison				
Total	29,737	10,503	15,913	3,321
White	11,175	4,557	5,600	1,018
Nonwhite	18,562	5,946	10,313	2,303
Marion				
Total	22,871	7,495	13,007	2,299
White	15,732	5,345	8,612	1,775
Nonwhite	7,139	2,150	4,465	524
Indian	24	14	---	---
Marshall				
Total	24,027	5,728	14,213	4,086
White	9,124	2,331	5,805	988
Nonwhite	14,903	3,397	8,408	3,098
Indian	23	14	---	---
Monroe				
Total	34,043	13,398	16,996	3,649
White	23,655	8,122	12,252	2,281
Nonwhite	10,388	4,276	4,744	1,368
Montgomery				
Total	12,918	5,489	5,688	1,741
White	7,126	3,341	2,814	971
Nonwhite	5,792	2,148	2,874	770
Neshoba				
Total	20,802	6,358	10,534	3,910
White	15,403	4,375	8,071	2,957
Nonwhite	5,399	1,983	2,463	953
Indian	1,603	28	---	---

Table 2.-(continued)

Area	Total	Urban	Rural	
			Nonfarm	Farm
Newton				
Total	18,983	3,556	12,850	2,577
White	13,353	2,257	8,790	2,306
Nonwhite	5,630	1,299	4,060	271
Indian	432	4	---	---
Noxubee				
Total	14,288	2,877	7,745	3,666
White	4,844	1,503	2,109	1,232
Nonwhite	9,444	1,374	5,636	2,434
Indian	40	---	---	---
Oktibbeha				
Total	28,752	16,072	10,890	1,790
White	18,555	12,607	4,852	1,096
Nonwhite	10,197	3,465	6,038	694
Indian	11	9	---	---
Chinese	76	76	---	---
Filipino	10	9	---	---
Korean	13	13	---	---
Panola				
Total	26,829	3,796	18,495	4,538
White	13,061	3,107	7,724	2,230
Nonwhite	13,768	689	10,771	2,308
Pearl River				
Total	27,802	10,450	16,243	1,109
White	22,664	6,914	14,686	1,064
Nonwhite	5,138	3,536	1,577	45
Perry				
Total	9,065	---	7,945	1,120
White	6,674	---	5,751	923
Nonwhite	2,391	---	2,194	197
Pike(4)				
Total	31,756	11,833	17,990	1,933
White	17,922	7,914	8,816	1,192
Nonwhite	13,834	3,919	9,174	741
Pontotoc				
Total	17,363	3,451	10,225	3,657
White	14,225	2,884	8,141	3,200
Nonwhite	3,138	567	2,114	457
Prentiss				
Total	20,133	5,895	11,216	3,022
White	17,828	4,992	9,891	2,945
Nonwhite	2,305	903	1,325	77
Quitman				
Total	15,888	2,609	8,990	4,289
White	6,730	1,080	3,877	1,773
Nonwhite	9,158	1,529	5,113	2,516
Indian	37	---	---	---
Chinese	39	18	---	---
Rankin				
Total	43,933	12,218	29,092	2,623
White	31,484	11,562	18,188	1,534
Nonwhite	12,449	656	10,704	1,089
Indian	16	---	---	---
Japanese	18	11	---	---
Scott				
Total	21,369	6,715	11,878	2,776
White	14,304	4,585	7,787	1,932
Nonwhite	7,065	2,130	4,091	844
Indian	55	11	---	---
Sharkey				
Total	8,937	---	5,408	3,529
White	3,142	---	2,488	654
Nonwhite	5,795	---	2,920	2,875
Indian	14	---	---	---
Chinese	13	---	---	---
Simpson				
Total	19,947	2,911	14,687	2,349
White	13,658	2,311	9,714	1,633
Nonwhite	6,289	600	4,973	716
Smith				
Total	13,561	---	10,254	3,307
White	10,620	---	7,673	2,947
Nonwhite	2,941	---	2,581	360
Indian	57	---	---	---
Stone				
Total	8,101	2,932	4,628	541
White	6,226	2,173	3,572	481
Nonwhite	1,875	759	1,056	60
Indian	14	6	---	---
Sunflower				
Total	37,047	11,615	19,296	6,136
White	13,619	5,276	6,153	2,190
Nonwhite	23,428	6,339	13,143	3,946
Indian	19	3	---	---
Chinese	132	49	---	---
Tallahatchie				
Total	19,338	2,627	7,856	8,855
White	7,650	1,254	3,842	2,544
Nonwhite	11,688	1,373	4,014	6,301
Chinese	43	9	---	---
Tate				
Total	18,544	4,247	11,260	3,037
White	9,780	3,065	5,189	1,526
Nonwhite	8,764	1,182	6,071	1,511
Tippah				
Total	15,852	3,482	9,277	3,093
White	13,246	2,845	7,851	2,550
Nonwhite	2,606	637	1,426	543
Tishomingo				
Total	14,940	---	12,922	2,018
White	14,271	---	12,319	1,952
Nonwhite	669	---	603	66
Tunica				
Total	11,854	---	5,979	5,875
White	3,240	---	2,208	1,032
Nonwhite	8,614	---	3,771	4,843
Union				
Total	19,096	6,426	9,457	3,213
White	16,146	4,877	8,534	2,735
Nonwhite	2,950	1,549	923	478

Table 2.-(continued)

Area	Total	Urban	Rural	
			Nonfarm	Farm
Walthall				
Total	12,500	---	9,620	2,880
White	7,406	---	5,645	1,761
Nonwhite	5,094	---	3,975	1,119
Warren				
Total	44,981	25,586	18,372	1,023
White	26,497	12,913	13,049	535
Nonwhite	18,484	12,673	5,323	488
Indian	24	13	---	---
Chinese	91	59	---	---
Washington				
Total	70,581	48,898	18,698	2,985
White	31,874	22,369	8,039	1,466
Nonwhite	38,707	26,529	10,659	1,519
Indian	16	10	---	---
Chinese	235	209	---	---
Wayne				
Total	16,650	4,368	10,562	1,720
White	11,163	2,670	7,248	1,245
Nonwhite	5,487	1,698	3,314	475
Webster				
Total	10,047	---	8,417	1,630
White	7,789	---	6,307	1,482
Nonwhite	2,258	---	2,110	148
Wilkinson				
Total	11,099	---	9,881	1,218
White	3,583	---	3,281	302
Nonwhite	7,516	---	6,600	916
Winston				
Total	18,406	6,568	8,498	3,340
White	10,956	4,002	4,553	2,401
Nonwhite	7,450	2,566	3,945	939
Indian	132	5	---	---
Yalobusha				
Total	11,915	3,597	6,785	1,533
White	7,101	2,455	3,925	721
Nonwhite	4,814	1,142	2,860	812
Yazoo(4)				
Total	27,304	10,796	13,833	2,675
White	12,725	4,327	7,120	1,278
Nonwhite	14,579	6,469	6,713	1,397
Indian	19	1	---	---
Chinese	10	10	---	---

TABLE 3.-CHANGE IN POPULATION, UNITED STATES, SOUTH, MISSISSIPPI AND MISSISSIPPI COUNTIES BY RACE AND RESIDENCE, 1960 to 1970 AND 1950 to 1970.

Area	Percent Change 1960-1970				Percent Change 1950-1970			
	Total	Urban	Rural		Total	Urban	Rural	
			Nonfarm	Farm			Nonfarm	Farm
United States								
Total	13.3	19.2	12.3	-38.3	34.9	54.8	46.2	-64.0
White	12.1	16.9	12.9	-34.3	32.0	48.8	44.9	-60.5
Nonwhite	22.5	26.8	6.7	-67.6	59.3	100.1	59.6	-84.5
South								
Total	14.2	26.1	14.2	-49.9	33.0	76.6	56.1	-75.0
White	16.2	26.7	15.8	-43.3	37.0	79.0	55.9	-71.2
Nonwhite	6.9	23.5	7.7	-69.5	18.8	40.4	57.3	-85.7
Mississippi								
Total	1.8	20.3	25.1	-61.3	1.7	62.6	114.8	-80.8
White	10.9	24.3	27.3	-50.8	17.4	74.6	99.1	-76.1
Nonwhite	-10.7	13.1	21.9	-69.8	-17.0	43.4	144.9	-84.8
Adams								
Total	- 1.2	-17.2	39.0	-79.3	15.6	-13.4	252.5	-93.2
White	2.0	-14.8	34.8	-77.2	20.2	-23.8	270.3	-85.3
Nonwhite	- 4.4	-19.4	44.5	-80.4	11.0	0.0	232.6	-94.9
Alcorn								
Total	7.5	1.0	82.0	-57.0	0.1	18.3	161.9	-76.4
White	9.1	1.7	80.4	-55.2	3.0	23.3	169.3	-75.3
Nonwhite	- 2.8	- 1.6	110.3	-75.0	-17.0	1.5	85.6	-87.1

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Amite								
Total	-11.6	---(1)	14.8	-53.3	-28.6	---	95.1	-79.4
White	- 4.3	---	17.7	-42.8	-22.7	---	64.8	-73.4
Nonwhite	-17.8	---	12.1	-61.2	-33.5	---	136.4	-83.5
Attala								
Total	- 8.3	6.9	49.0	-62.0	-26.6	7.6	151.5	-80.4
White	- 1.8	12.5	35.0	-52.5	-23.3	12.1	78.5	-77.1
Nonwhite	-16.2	- 1.3	72.6	-70.4	-30.9	0.9	446.3	-83.6
Benton								
Total	- 2.8	---	107.2	-62.7	-14.7	---	432.9	-75.9
White	5.9	---	64.7	-51.8	-11.9	---	252.4	-74.9
Nonwhite	-12.7	---	233.8	-70.4	-18.2	---	2053.8	-76.9
Bolivar								
Total	- 9.3	104.3	35.6	-87.9	-21.6	208.1	57.6	-92.3
White	8.5	73.9	11.4	-70.4	- 4.4	157.2	11.5	-83.7
Nonwhite	-17.7	150.8	47.0	-92.5	-29.5	289.5	85.1	-95.0
Calhoun								
Total	- 8.3	---	23.8	-50.5	-20.4	---	102.3	-73.5
White	- 6.8	---	20.6	-46.0	-23.2	---	83.7	-73.2
Nonwhite	-12.3	---	33.6	-60.6	-11.1	---	180.9	-74.2
Carroll								
Total	-15.9	---	59.9	-69.5	-39.4	---	153.7	-84.1
White	- 1.2	---	55.9	-59.2	-30.7	---	99.4	-80.4
Nonwhite	-26.5	---	64.0	-75.1	-46.0	---	246.8	-86.5
Chickasaw								
Total	- 0.5	10.1	47.0	-60.9	-11.3	(2)	33.2	-82.0
White	4.3	6.0	35.1	-41.5	2.9	(2)	12.6	-72.5
Nonwhite	- 8.2	20.3	69.3	-79.3	-29.0	(2)	81.9	-90.7
Choctaw								
Total	0.2	---	33.0	-54.0	-23.3	---	107.7	-80.9
White	2.9	---	40.0	-53.1	-20.9	---	123.5	-79.8
Nonwhite	- 6.1	---	18.3	-56.6	-28.9	---	76.9	-83.7
Claiborne								
Total	- 7.0	- 7.4	5.9	-39.3	-15.6	9.3	91.5	-76.6
White	1.4	- 9.5	10.8	- 7.2	-14.8	9.2	74.5	-59.7
Nonwhite	- 8.8	- 6.2	4.9	-50.6	-15.8	9.3	95.5	-81.7
Clarke								
Total	- 8.8	(2)	-19.3	-52.8	-22.3	(2)	20.8	-85.9
White	- 3.7	(2)	-17.7	-42.3	-16.1	(2)	17.5	-80.1
Nonwhite	-16.6	(2)	-21.6	-72.6	-31.3	(2)	26.3	-93.5
Clay								
Total	- 0.5	- 0.4	49.2	-57.2	6.1	32.4	265.2	-77.1
White	3.4	0.8	37.7	-35.8	24.4	40.7	174.8	-59.8
Nonwhite	- 4.2	- 2.2	58.2	-69.8	- 7.8	21.9	371.0	-85.1
Coahoma								
Total	-12.5	2.7	6.9	-59.8	-18.1	31.0	200.6	-82.8
White	- 2.9	- 0.1	7.4	-38.0	3.7	31.6	61.8	-74.7
Nonwhite	-16.9	5.1	6.8	-63.4	-26.4	30.6	312.9	-84.2
Copiah								
Total	- 8.5	9.7	7.8	-64.6	-18.8	22.4	70.8	-85.4
White	- 6.3	- 6.7	16.1	-45.3	-13.4	5.8	62.4	-74.9
Nonwhite	-11.5	32.3	1.4	-80.4	-23.6	44.6	78.9	-92.6

(1) No urban population.

(2) Rate of change could not be computed because county contained no urban population in base year.

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Covington								
Total	2.7	---	63.9	-61.8	-12.7	---	145.1	-77.7
White	6.1	---	53.8	-51.8	-12.8	---	114.1	-73.5
Nonwhite	- 3.7	---	87.1	-77.2	-12.4	---	237.6	-85.2
De Soto								
Total	50.2	(2)	66.2	-61.1	-45.9	(2)	399.0	-80.5
White	151.5	(2)	95.2	-47.6	188.0	(2)	314.7	-72.5
Nonwhite	-13.8	(2)	39.6	-65.9	-23.6	(2)	575.6	-83.2
Forrest								
Total	9.7	15.3	0.0	-49.8	28.4	52.5	19.9	-85.0
White	14.7	21.4	1.9	-40.5	35.7	72.3	15.3	-83.4
Nonwhite	- 3.0	0.3	- 5.7	-83.1	10.4	13.8	37.1	-93.0
Franklin								
Total	-13.7	---	- 5.4	-58.0	-26.7	---	21.4	-87.3
White	-10.7	---	1.2	-57.6	-26.1	---	37.6	-86.2
Nonwhite	-18.1	---	- 13.9	-59.3	-27.7	---	3.3	-90.0
George								
Total	12.3	---	42.0	-66.3	24.4	---	119.0	-78.6
White	12.1	---	44.1	-65.3	25.2	---	134.1	-77.9
Nonwhite	13.6	---	28.9	-83.0	18.8	---	50.9	-89.4
Greene								
Total	2.1	---	14.4	-40.2	4.0	---	84.5	-73.2
White	3.2	---	19.6	-41.6	- 0.9	---	94.1	-73.6
Nonwhite	- 1.6	---	0.4	-24.0	25.9	---	59.4	-70.0
Grenada								
Total	7.8	25.7	39.5	-75.5	5.4	34.6	127.7	-86.7
White	19.4	38.0	26.2	-58.6	24.0	40.6	99.3	-78.2
Nonwhite	- 4.1	12.6	61.4	-83.5	-11.6	27.5	178.8	-90.9
Hancock								
Total	23.8	97.9	- 11.1	-63.6	46.2	117.3	44.1	-82.4
White	26.4	110.3	- 7.6	-62.9	51.2	130.1	60.0	-81.8
Nonwhite	10.4	54.5	- 32.0	-100.0	22.1	71.6	- 20.4	-100.0
Harrison								
Total	12.6	21.1	14.5	-54.9	60.1	61.0	117.2	-88.0
White	11.1	19.7	12.6	-56.5	57.6	54.2	152.2	-87.8
Nonwhite	20.7	27.1	38.5	35.0	73.1	96.4	- 37.6	-91.0
Hinds								
Total	14.9	19.6	20.8	-63.9	51.2	80.0	56.1	-82.6
White	16.5	15.9	35.8	-40.3	67.2	90.0	14.0	-68.3
Nonwhite	12.5	26.5	8.7	-71.4	31.7	65.0	147.3	-86.5
Holmes								
Total	-14.7	0.8	20.6	-63.5	-30.6	72.1	69.0	-83.2
White	- 3.4	3.0	10.3	-42.7	-16.9	99.9	- 8.3	-73.5
Nonwhite	-19.1	- 1.3	24.8	-67.4	-35.5	50.9	141.5	-85.0
Humphreys								
Total	-23.5	-25.2	- 19.2	-31.4	-36.8	-23.9	219.7	-80.1
White	-11.0	-23.6	1.1	-19.7	-26.9	-22.3	112.9	-71.7
Nonwhite	-39.0	-26.2	26.5	-36.7	-41.2	-24.9	325.7	-83.2
Issaquena								
Total	-23.5	---	12.6	-60.4	-44.9	---	291.9	-84.1
White	-11.6	---	6.7	-29.7	-35.8	---	169.7	-69.8
Nonwhite	-29.2	---	15.4	-76.0	-49.3	---	396.8	-90.8
Itawamba								
Total	11.7	(2)	24.6	-59.5	- 2.1	(2)	168.6	-82.0
White	12.1	(2)	26.8	-59.3	- 2.2	(2)	172.9	-81.8
Nonwhite	5.1	(2)	- 8.8	-65.1	- 1.9	(2)	102.3	-85.1

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Jackson								
Total	58.5	85.2	19.6	-55.9	180.2	257.2	130.5	-85.7
White	64.9	100.8	23.0	-53.6	198.6	282.2	169.9	-85.8
Nonwhite	32.0	42.4	- 17.2	-77.0	112.8	184.9	- 32.2	-82.7
Jasper								
Total	- 5.4	---	24.5	-62.8	-15.4	---	-163.1	-84.2
White	2.0	---	28.3	-46.6	- 6.8	---	160.4	-75.8
Nonwhite	-12.7	---	20.9	-79.5	-23.6	---	166.0	-91.8
Jefferson								
Total	- 8.4	---	2.2	-35.6	-17.8	---	107.2	-76.3
White	- 7.6	---	- 11.7	1.6	-20.4	---	23.1	-53.1
Nonwhite	- 8.6	---	6.6	-49.3	-16.9	---	151.4	-82.6
Jeff Davis								
Total	- 4.5	---	48.1	-59.3	-16.5	---	236.3	-78.3
White	5.1	---	28.2	-32.7	- 6.6	---	143.4	-68.0
Nonwhite	-12.4	---	72.6	-73.5	-24.5	---	415.6	-84.9
Jones								
Total	- 5.3	11.4	20.4	-53.4	- 1.5	0.6	106.6	-81.2
White	- 3.8	12.6	20.9	-49.0	0.5	1.2	102.5	-79.8
Nonwhite	- 9.8	8.9	17.8	-68.5	- 7.3	0.5	136.1	-86.3
Kemper								
Total	-16.6	---	35.4	-52.3	-35.6	---	117.8	-72.8
White	- 8.1	---	31.6	-46.3	-31.3	---	72.8	-71.6
Nonwhite	-22.2	---	38.9	-55.4	-38.6	---	180.4	-73.5
Lafayette								
Total	13.2	56.7	50.7	-74.1	6.1	251.7	31.0	-85.7
White	22.9	49.5	49.2	-66.3	17.9	279.5	- 8.6	-82.9
Nonwhite	- 5.6	-100.0	52.8	81.2	-15.4	165.0	214.4	-88.6
Lamar								
Total	11.2	(2)	27.5	-59.1	15.0	(2)	120.7	-82.9
White	15.3	(2)	35.0	-57.5	18.7	(2)	160.0	-82.2
Nonwhite	- 9.8	(2)	- 3.8	-86.4	- 4.4	(2)	16.8	-94.5
Lauderdale								
Total	0.0	- 8.7	45.4	-61.3	4.5	7.6	111.9	-89.0
White	6.1	- 8.2	69.5	-50.7	13.5	9.4	129.0	-85.6
Nonwhite	-11.4	- 9.7	2.5	-74.4	-11.0	4.2	73.7	-93.0
Lawrence								
Total	9.0	---	43.0	-62.9	-11.9	---	164.0	-86.3
White	18.9	---	54.2	-53.3	- 4.2	---	154.0	-81.6
Nonwhite	- 7.2	---	25.2	-79.7	-24.7	---	186.1	-93.3
Leake								
Total	- 8.4	(2)	21.6	-61.5	-20.9	(2)	144.5	-77.1
White	- 1.7	(2)	1.6	-51.8	-16.6	(2)	89.8	-74.4
Nonwhite	-17.2	(2)	61.3	-70.6	-26.8	(2)	283.0	-80.4
Lee								
Total	13.7	18.9	59.5	-66.8	20.7	77.6	204.7	-84.2
White	20.7	29.3	53.7	-60.8	32.7	108.1	177.0	-82.4
Nonwhite	- 7.1	-13.9	82.3	-77.6	-10.3	4.9	356.1	-88.0
Leflore								
Total	-10.7	9.6	83.2	-77.7	-18.7	24.0	198.8	-85.8
White	5.4	13.8	25.9	-61.7	6.8	24.5	72.1	-77.5
Nonwhite	-19.5	5.7	142.4	-80.4	-30.6	23.5	394.0	-87.3
Lincoln								
Total	- 2.1	8.2	- 1.0	-29.9	- 6.1	37.2	68.5	-76.7
White	- 1.5	7.6	4.8	-33.3	- 3.1	39.1	93.3	-74.7
Nonwhite	- 3.5	9.3	- 13.7	-13.1	-12.2	34.0	25.4	-82.2

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Lowndes								
Total	6.6	20.9	20.3	-64.4	31.3	74.4	128.4	-79.2
White	15.7	34.0	9.2	-48.0	71.8	116.3	137.8	-68.7
Nonwhite	- 8.3	1.3	57.3	-75.6	-11.5	26.1	109.3	-86.0
Madison								
Total	- 9.6	8.2	43.4	-72.6	-12.2	49.0	171.5	-84.2
White	20.6	30.4	46.9	-48.1	25.2	71.8	89.5	-69.3
Nonwhite	-21.5	-4.3	41.6	-77.3	-25.6	35.3	54.8	-86.9
Marion								
Total	- 1.8	5.3	37.6	-65.5	- 4.6	22.4	160.9	-82.1
White	2.1	6.3	34.1	-55.2	1.0	29.1	155.4	-78.0
Nonwhite	- 9.5	3.0	44.8	-80.7	-14.9	8.3	172.1	-89.0
Marshall								
Total	- 1.9	1.9	129.6	-67.8	- 4.3	74.9	432.7	-78.7
White	25.6	9.0	116.4	-59.6	23.7	67.0	233.2	-76.7
Nonwhite	-13.6	-2.4	139.7	-69.8	-16.0	80.7	808.0	-79.2
Monroe								
Total	0.3	3.7	43.8	-60.4	- 6.8	30.3	135.9	-80.9
White	7.9	5.8	40.3	-50.2	3.6	42.1	102.4	-78.0
Nonwhite	-13.6	-0.6	53.5	-70.5	-24.3	10.8	311.8	-84.3
Montgomery								
Total	- 3.0	28.2	26.0	-61.5	-10.7	59.5	90.8	-78.4
White	- 3.0	36.7	- 0.7	-53.1	-13.6	70.9	39.2	-77.3
Nonwhite	- 3.0	16.9	71.0	-68.6	- 6.9	44.6	199.4	-79.6
Neshoba								
Total	- 0.6	26.7	43.8	-54.4	-19.2	42.2	195.7	-77.9
White	2.5	28.4	45.2	-51.2	-19.2	40.4	176.8	-77.3
Nonwhite	- 8.5	23.2	39.2	-62.2	-19.0	46.4	280.7	-79.6
Newton								
Total	- 2.7	11.9	35.4	-62.4	-16.3	22.1	136.9	-82.0
White	3.1	14.6	35.7	-48.8	-10.0	11.0	139.5	-74.7
Nonwhite	-14.3	7.4	34.8	-88.4	-28.3	48.0	131.3	-94.8
Noxubee								
Total	-15.1	(2)	6.3	-61.6	-28.6	(2)	57.8	-75.7
White	2.5	(2)	-33.3	-21.2	- 5.3	(2)	- 11.2	-55.1
Nonwhite	-22.0	(2)	36.6	-69.5	-36.6	(2)	122.4	-80.3
Oktibbeha								
Total	9.8	77.8	-12.7	-61.6	17.0	126.1	57.8	-83.1
White	26.0	103.8	-29.6	-32.4	44.8	158.5	3.9	-66.5
Nonwhtie	-10.9	22.4	8.4	-77.2	-13.2	55.4	170.3	-90.5
Panola								
Total	- 6.8	15.6	89.5	-71.2	-14.2	(2)	93.8	-79.1
White	3.9	14.5	57.4	-54.9	- 5.2	(2)	28.2	-71.2
Nonwhite	-15.1	20.7	122.0	-78.6	-21.3	(2)	206.3	-83.5
Pearl River								
Total	24.1	33.4	44.3	-66.6	34.7	55.8	186.3	-86.6
White	31.6	58.3	52.2	-66.8	40.4	79.6	208.7	-85.9
Nonwhite	- 1.0	2.0	- 1.8	-62.2	14.4	23.8	70.2	-93.8
Perry								
Total	3.7	---	18.6	-45.3	- 0.5	---	82.9	-76.5
White	5.4	---	25.1	-46.9	- 3.2	---	88.7	-76.0
Nonwhite	-0.9	---	4.4	-36.5	8.1	---	69.3	-78.5
Pike								
Total	-9.4	-1.6	- 3.5	-56.1	- 9.6	13.8	44.8	-84.3
White	-8.8	-8.0	- 2.0	-42.2	- 7.8	1.1	37.7	-77.1
Nonwhite	-10.2	14.6	- 4.9	-68.4	-11.9	52.3	52.3	-89.6

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Pontotoc								
Total	0.8	(2)	21.6	-58.5	-13.2	(2)	116.4	-76.0
White	2.0	(2)	19.5	-55.1	-12.1	(2)	103.4	-73.7
Nonwhite	-4.5	(2)	30.3	-72.5	-17.8	(2)	187.2	-85.2
Prentiss								
Total	12.2	69.4	79.8	-63.3	1.6	73.9	232.2	-77.0
White	13.1	66.0	75.5	-58.6	2.0	82.2	230.3	-74.9
Nonwhite	5.4	90.9	120.1	-93.1	- 1.2	62.7	247.8	-94.5
Quitman								
Total	-24.4	1.4	5.0	-56.6	-38.6	(2)	71.3	-79.2
White	-12.8	- 2.9	28.9	-50.7	-33.9	(2)	37.7	-75.9
Nonwhite	-31.2	4.7	- 7.9	-60.0	-41.7	(2)	110.1	-81.0
Rankin								
Total	28.0	140.5	24.4	-55.3	52.1	(2)	88.6	-80.5
White	46.4	132.9	34.8	-47.0	107.0	(2)	96.4	-73.8
Nonwhite	- 2.9	465.5	10.0	63.3	- 8.9	(2)	76.4	-85.7
Scott								
Total	0.9	71.4	22.5	-63.3	- 1.4	133.7	116.6	-79.2
White	9.6	88.1	20.6	-53.5	16.2	200.1	126.7	-73.7
Nonwhite	-13.2	43.9	26.1	-75.3	-24.6	58.3	99.7	-85.9
Sharkey								
Total	-16.8	---	13.8	-41.0	-30.7	---	56.5	-62.7
White	- 3.2	---	20.6	-44.8	-15.2	---	48.7	-67.9
Nonwhite	-22.6	---	8.6	-40.1	-37.0	---	63.9	-61.2
Simpson								
Total	- 2.5	(2)	8.2	-65.8	- 8.6	(2)	56.5	-83.4
White	3.0	(2)	1.8	-56.0	- 6.1	(2)	48.7	-81.5
Nonwhite	-12.7	(2)	23.1	-77.3	-13.5	(2)	63.9	-86.5
Smith								
Total	- 5.2	---	43.9	-53.9	-19.0	---	90.9	-75.4
White	- 3.9	---	35.0	-45.1	-20.5	---	69.6	-71.9
Nonwhite	- 9.4	---	79.1	-80.0	-13.2	---	152.8	-87.8
Stone								
Total	15.5	(2)	- 22.3	-48.8	29.3	(2)	211.0	-79.8
White	17.4	(2)	- 18.0	-49.1	27.1	(2)	167.9	-78.2
Nonwhite	9.6	(2)	- 34.0	-46.4	37.4	(2)	496.1	-87.1
Sunflower								
Total	-19.0	73.0	- 23.5	-55.5	-33.9	165.9	28.9	-84.3
White	- 7.5	78.1	- 23.0	-42.0	-23.8	152.1	32.8	-77.6
Nonwhite	-24.5	69.0	- 23.8	-60.7	-38.6	178.5	17.3	-86.5
Tallahatchie								
Total	-19.7	3.9	- 34.3	- 7.7	-36.6	- 0.1	53.6	-62.1
White	-10.8	-5.7	- 5.2	-20.5	-30.9	- 16.7	2.8	-63.1
Nonwhite	-24.6	14.6	- 49.3	- 1.4	-39.8	22.3	99.9	-61.7
Tate								
Total	2.2	30.3	164.7	-71.4	3.0	(2)	74.7	-77.9
White	27.1	45.5	133.4	-54.7	28.0	(2)	45.0	-69.2
Nonwhite	-16.1	2.5	198.9	-78.6	-15.5	(2)	117.2	-82.8
Tippah								
Total	5.0	30.5	112.3	-61.6	- 9.5	(2)	71.5	-74.5
White	7.4	37.0	96.0	-59.2	- 6.3	(2)	72.3	-73.4
Nonwhite	- 5.4	7.6	292.8	-69.9	-23.2	(2)	67.8	-78.7
Tishomingo								
Total	7.6	---	43.2	-58.5	- 3.9	---	125.7	-79.5
White	8.0	---	44.5	-58.3	- 3.2	---	129.7	-79.2
Nonwhite	- 1.5	---	20.6	-63.1	-17.0	---	67.0	-85.2

Table 3 (continued)

Area	Percent Change 1960-1970				Percent Change 1950-1970			
			Rural				Rural	
	Total	Urban	Nonfarm	Farm	Total	Urban	Nonfarm	Farm
Tunica								
Total	-29.5	---	- 2.4	-45.1	-45.3	---	92.0	-68.3
White	- 7.6	---	14.9	-34.8	-17.8	---	39.6	-56.2
Nonwhite	-35.3	---	- 10.3	-46.9	-51.4	---	146.2	-70.1
Union								
Total	1.0	24.8	64.1	-59.8	- 5.8	74.6	186.8	-75.8
White	3.6	29.0	64.9	-58.8	- 2.9	84.0	199.5	-75.4
Nonwhite	-10.9	13.1	57.0	-64.7	-18.9	50.4	105.6	-77.8
Walthall								
Total	- 7.5	---	50.3	-59.5	-19.7	---	272.4	-77.8
White	- 0.1	---	55.3	-53.4	-11.8	---	235.4	-73.8
Nonwhite	-16.5	---	43.7	-66.4	-28.7	---	341.7	-82.1
Warren								
Total	6.6	-12.2	43.5	299.6	13.5	- 8.5	207.9	-82.1
White	18.0	-16.8	90.3	710.6	35.7	- 9.5	299.9	-73.2
Nonwhite	- 6.5	- 7.0	- 10.5	156.8	- 8.0	- 7.4	96.9	-86.8
Washington								
Total	-10.2	- 7.7	0.5	-57.8	0.1	41.0	137.3	-89.3
White	- 9.5	-14.0	11.3	-26.8	36.0	63.5	97.4	-74.2
Nonwhite	-10.8	- 1.6	- 6.4	-70.0	-17.8	26.4	179.9	-93.2
Wayne								
Total	2.4	12.2	21.7	-53.3	- 2.1	26.9	195.7	-82.8
White	6.8	16.4	29.8	-51.6	3.4	35.3	229.6	-81.2
Nonwhite	- 5.5	6.2	7.0	-57.3	-11.8	15.6	141.4	-85.9
Webster								
Total	- 5.0	---	35.5	-62.7	-13.4	---	160.2	-80.5
White	- 1.9	---	29.5	-51.7	-12.6	---	148.1	-36.8
Nonwhite	-14.5	---	57.1	-88.6	-16.1	---	204.5	-92.6
Wilkinson								
Total	-16.1	---	- 3.6	-59.3	-21.4	---	40.4	-82.8
White	- 5.9	---	1.1	-46.3	-17.8	---	15.7	-80.2
Nonwhite	-20.3	---	- 5.7	-62.3	-23.0	---	57.0	-83.5
Winston								
Total	- 4.4	29.6	46.0	-60.0	-17.2	24.4	192.7	-76.2
White	0.9	38.3	32.7	-47.0	-15.3	35.4	137.9	-70.2
Nonwhite	-11.2	18.1	65.1	-75.5	-19.8	10.3	298.9	-84.3
Yalobusha								
Total	- 4.7	12.2	76.6	-71.9	-21.6	12.0	190.1	-84.1
White	2.0	4.6	67.2	-68.2	-16.7	- 0.4	143.6	-83.8
Nonwhite	-13.1	32.8	91.2	-74.5	-27.7	52.5	292.9	-84.3
Yazoo								
Total	-13.7	- 3.9	48.1	-75.8	-23.5	10.8	159.0	-87.0
White	- 1.1	-14.0	44.1	-55.7	- 6.7	2.3	112.4	-78.9
Nonwhite	-22.4	4.3	52.6	-82.9	-34.0	17.3	237.7	-90.4

Source: Computed from data in Table 1 and U. S. Bureau of the Census, U. S. Census of Population, 1970, Report PC(1)-D1, Table 269; 1960, Report PC(1)-1C, Table 108, PC(1)-26A, Table 6; PC(1)-26B, Table 27; PC(1)-26C, Tables 91 and 93; 1950, Vol. II, Part 1, Table 60, Part 24 (Washington, D.C.: USGPO), Tables 41, 48, and 49.

TABLE 4.-POPULATION BY URBAN-RURAL RESIDENCE AND POPULATION DENSITY UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970, 1960, and 1950.

Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.	Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.
	Urban	Rural Nonfarm	Rural Farm			Urban	Rural Nonfarm	Rural Farm	
United States					Chickasaw				
1970	73.5	22.4	4.1	57.5	1970	34.0	52.8	13.2	33.2
1960	69.9	22.6	7.5	51.0	1960	30.8	35.7	33.5	33.4
1950	64.0	20.7	15.3	42.6	1950	---	35.2	64.8	37.5
South					Choctaw				
1970	64.6	30.7	4.7	71.9	1970	---	82.7	17.3	20.2
1960	58.5	30.7	10.8	62.7	1960	---	62.3	37.7	20.2
1950	48.6	26.2	25.2	53.7	1950	---	30.5	69.5	26.4
E. S. C.(2)					Claiborne				
1970	54.6	37.0	8.3	71.5	1970	26.3	60.2	13.6	20.6
1960	48.4	34.3	17.3	67.0	1960	26.4	52.9	20.8	22.3
1950	39.1	35.3	25.6	63.8	1950	24.4	26.5	49.0	24.6
Mississippi					Clarke				
1970	44.5	46.0	9.5	46.9	1970	18.5	71.8	9.8	21.6
1960	37.7	37.4	24.9	46.1	1960	---	81.1	18.9	23.7
1950	27.9	21.8	50.4	46.1	1950	---	46.2	53.8	27.8
Adams					Clay				
1970	52.8	46.3	.8	83.1	1970	45.2	43.8	11.0	45.5
1960	63.1	33.0	4.0	84.2	1960	45.2	29.2	25.6	45.7
1950	70.5	15.2	14.3	72.0	1950	36.2	12.7	51.1	42.9
Alcorn					Coahoma				
1970	42.6	46.5	10.9	67.1	1970	53.6	34.4	12.0	71.1
1960	45.3	27.5	27.2	62.4	1960	45.7	28.2	26.2	71.1
1950	36.0	17.8	46.2	67.1	1950	33.5	9.4	57.1	86.6
Amite					Copiah				
1970	---(3)	79.5	20.5	18.9	1970	35.0	56.0	9.0	31.7
1960	---	61.2	38.8	21.4	1960	29.2	47.5	23.3	34.6
1950	---	29.1	70.9	26.4	1950	23.2	26.6	50.2	39.0
Attala					Covington				
1970	37.1	46.5	16.3	27.0	1970	---	81.9	18.1	33.7
1960	31.9	28.7	39.5	29.5	1960	---	51.3	48.7	32.8
1950	25.3	13.6	61.1	36.8	1950	---	29.2	70.8	38.5
Benton					DeSoto				
1970	---	75.1	24.9	18.2	1970	24.9	64.3	10.8	75.4
1960	---	35.2	64.8	18.7	1960	---	58.1	41.9	50.2
1950	---	12.0	88.0	21.3	1950	---	18.8	81.2	51.7
Bolivar					Forrest				
1970	42.1	51.7	6.3	53.5	1970	77.7	20.9	1.4	123.6
1960	18.7	34.6	46.7	59.0	1960	74.0	22.9	3.1	112.4
1950	10.7	25.7	63.6	68.3	1950	65.4	22.3	12.2	96.1
Calhoun					Franklin				
1970	---	76.7	23.3	25.4	1970	---	92.3	7.7	14.1
1960	---	56.8	43.2	27.7	1960	---	84.2	15.8	16.3
1950	---	30.2	69.8	31.9	1950	---	55.7	44.3	19.2
Carroll					George				
1970	---	78.7	21.3	14.8	1970	---	91.8	8.2	25.9
1960	---	41.4	58.6	17.5	1960	---	72.6	27.4	23.1
1950	---	18.8	81.2	24.3	1950	---	52.1	47.9	20.8

(1) Percent distributions for each year add to 100 percent, or (because of rounding) to 99.9 or 100.1 percent.

(2) East South Central.

(3) Dashes indicate no urban population.

Table 4.-(continued)

Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.
	Urban	Rural		
		Nonfarm	Farm	
Greene				
1970	---	86.9	13.1	11.7
1960	---	77.6	22.4	11.5
1950	---	49.0	51.0	11.3
Grenada				
1970	50.1	44.9	5.1	46.1
1960	43.0	34.7	22.3	42.7
1950	39.2	20.8	40.0	43.7
Hancock				
1970	57.8	39.7	2.5	36.1
1960	36.1	55.3	8.5	28.9
1950	38.9	40.3	20.8	24.5
Harrison				
1970	83.2	16.4	0.4	230.1
1960	77.4	21.6	1.0	204.5
1950	82.7	12.1	5.2	143.7
Hinds				
1970	83.9	14.3	1.8	245.4
1960	80.7	13.6	5.8	213.3
1950	70.5	13.8	15.7	162.1
Holmes				
1970	23.8	60.3	15.9	30.1
1960	20.1	42.7	37.2	35.2
1950	9.6	24.8	65.6	43.3
Humphreys				
1970	21.2	56.5	22.3	34.7
1960	21.7	53.5	24.8	45.4
1950	17.6	11.2	71.2	54.9
Issaquena				
1970	---	74.5	25.5	6.6
1960	---	50.6	49.4	8.6
1950	---	10.5	89.5	12.0
Itawamba				
1970	17.2	69.0	13.8	31.1
1960	---	61.9	38.1	27.9
1950	---	25.1	74.9	31.8
Jackson				
1970	71.6	27.8	0.5	119.5
1960	61.3	36.9	1.8	75.4
1950	56.2	33.9	10.0	42.7
Jasper				
1970	---	86.5	13.5	23.4
1960	---	65.7	34.3	24.8
1950	---	27.8	72.2	27.7
Jefferson				
1970	---	80.3	19.7	17.8
1960	---	72.0	28.0	19.5
1950	---	31.9	68.1	21.7
Jefferson Davis				
1970	---	79.1	20.9	31.2
1960	---	51.0	49.0	32.7
1950	---	19.6	80.4	37.4
Jones				
1970	51.1	43.3	5.6	80.3
1960	54.6	34.0	11.4	84.8
1950	50.0	20.6	29.4	81.5
Kemper				
1970	---	66.0	34.0	13.5
1960	---	40.6	59.4	16.2
1950	---	19.5	80.5	21.0
Lafayette				
1970	57.5	35.1	7.3	36.2
1960	41.6	26.4	32.0	32.0
1950	17.4	28.5	54.2	34.1
Lamar				
1970	2.1	90.1	7.9	30.4
1960	---	78.6	21.4	27.4
1950	---	46.9	53.1	26.5
Lauderdale				
1970	67.2	30.7	2.1	94.8
1960	73.6	21.1	5.3	93.1
1950	65.3	15.2	19.5	90.6
Lawrence				
1970	---	89.1	10.9	25.7
1960	---	67.9	32.1	23.6
1950	---	29.7	70.3	29.2
Leake				
1970	17.7	58.8	23.4	29.2
1960	---	44.3	55.7	31.8
1950	---	19.0	81.0	36.9
Lee				
1970	44.4	49.0	6.6	101.4
1960	42.4	35.0	22.6	89.2
1950	30.1	19.4	50.4	84.0
Leflore				
1970	53.2	37.2	9.6	71.7
1960	43.3	18.1	38.5	79.6
1950	34.9	10.1	55.0	87.5
Lincoln				
1970	40.8	47.9	11.2	44.7
1960	36.9	47.4	15.7	45.7
1950	28.0	26.7	45.3	47.6
Lowndes				
1970	60.3	34.2	5.6	97.8
1960	53.1	30.3	16.6	91.8
1950	45.4	19.6	35.0	74.5
Madison				
1970	35.3	53.5	11.2	40.9
1960	29.5	33.7	36.8	45.3
1950	20.8	17.3	61.9	46.6
Marion				
1970	32.8	57.2	10.1	41.6
1960	30.6	40.8	28.6	42.4
1950	25.6	20.9	53.5	43.6
Marshall				
1970	23.8	59.2	17.0	33.8
1960	22.9	25.3	51.8	34.5
1950	13.0	10.6	76.3	35.4
Monroe				
1970	39.4	49.9	10.7	44.3
1960	38.1	34.8	27.1	44.2
1950	28.1	19.7	52.1	47.5

Table 4.-(continued)

Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.	Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.
	Urban	Rural Nonfarm	Rural Farm			Urban	Rural Nonfarm	Rural Farm	
Montgomery					Sharkey				
1970	42.5	44.0	13.5	32.1	1970	---	60.5	39.5	20.5
1960	32.1	33.9	34.0	33.1	1960	---	44.3	55.7	24.6
1950	23.8	20.6	55.6	35.9	1950	---	26.8	73.2	29.6
Neshoba					Simpson				
1970	30.6	50.6	18.8	36.6	1970	14.6	73.6	11.8	34.0
1960	24.0	35.0	41.0	36.8	1960	---	66.4	33.6	34.8
1950	17.4	13.8	68.8	45.3	1950	---	35.3	64.7	37.2
Newton					Smith				
1970	18.7	67.7	13.6	32.7	1970	---	75.6	24.4	21.1
1960	16.3	48.6	35.1	33.7	1960	---	49.8	50.2	22.3
1950	12.8	23.9	63.2	39.1	1950	---	19.7	80.3	26.1
Noxubee					Stone				
1970	20.1	54.2	25.7	20.6	1970	36.2	57.1	6.7	18.1
1960	---	43.3	56.7	24.2	1960	---	84.9	15.1	15.7
1950	---	24.5	75.5	28.8	1950	---	57.3	42.7	14.0
Oktibbeha					Sunflower				
1970	55.9	37.9	6.2	63.3	1970	31.4	52.1	16.6	53.4
1960	34.5	47.6	17.8	57.7	1960	14.7	55.2	30.2	66.0
1950	28.9	28.1	43.0	54.1	1950	7.8	22.4	69.8	80.9
Panola					Tallahatchie				
1970	14.1	68.9	16.9	38.7	1970	13.6	40.6	45.8	30.0
1960	11.4	33.9	54.7	41.5	1960	10.5	49.7	39.8	37.4
1950	---	30.5	69.5	45.1	1950	8.6	14.8	76.6	47.3
Pearl River					Tate				
1970	37.6	58.4	4.0	33.6	1970	22.9	60.7	16.4	45.8
1960	35.0	50.2	14.8	27.1	1960	18.0	23.5	58.6	44.8
1950	32.5	27.5	40.0	24.9	1950	---	23.7	76.3	44.5
Perry					Tippah				
1970	---	87.6	12.4	13.9	1970	22.0	58.5	19.5	34.2
1960	---	76.6	23.4	13.4	1960	17.7	28.9	53.4	32.5
1950	---	47.7	52.3	13.9	1950	---	30.9	69.1	37.8
Pike					Tishomingo				
1970	37.3	56.7	6.1	77.6	1970	---	86.5	13.5	33.7
1960	34.3	53.2	12.6	85.5	1960	---	65.0	35.0	31.3
1950	29.6	35.4	35.0	85.7	1950	---	36.8	63.2	35.0
Pontotoc					Tunica				
1970	19.9	59.1	21.1	34.7	1970	---	50.4	49.6	25.9
1960	---	49.0	51.0	34.4	1960	---	36.4	63.6	36.7
1950	---	23.7	76.3	39.9	1950	---	14.4	85.6	47.3
Prentiss					Union				
1970	29.3	55.7	15.0	48.2	1970	33.7	49.5	16.8	45.3
1960	19.4	34.8	45.9	42.9	1960	27.2	30.5	42.3	44.8
1950	16.6	17.0	66.3	47.4	1950	18.2	16.3	65.6	48.0
Quitman					Walthall				
1970	16.4	56.6	27.0	38.6	1970	---	77.0	23.0	31.0
1960	12.2	40.7	47.0	51.0	1960	---	47.4	52.6	33.5
1950	---	20.3	79.7	62.8	1950	---	16.6	83.4	38.6
Rankin					Warren				
1970	27.8	66.2	6.0	56.7	1970	56.9	40.8	2.3	77.4
1960	14.8	68.1	17.1	44.3	1960	69.0	30.3	0.6	72.6
1950	---	53.4	46.6	37.3	1950	70.5	15.1	14.4	68.2
Scott					Washington				
1970	31.4	55.6	13.0	34.7	1970	69.3	26.5	4.2	96.2
1960	18.5	45.8	35.7	34.5	1960	67.3	23.7	9.0	107.1
1950	13.3	25.3	61.5	35.3	1950	49.2	11.2	39.6	96.1

Table 4.-(continued)

Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.	Area and Year	Percent(1) of Population			Density Persons/ Sq. Mi.
	Urban	Rural Nonfarm	Rural Farm			Urban	Rural Nonfarm	Rural Farm	
Wayne					Winston				
1970	26.2	63.4	10.3	20.1	1970	35.7	46.2	18.1	30.4
1960	23.9	53.4	22.7	19.7	1960	26.3	30.2	43.4	31.8
1950	20.2	21.0	58.8	20.6	1950	23.8	13.1	63.2	36.7
Webster					Yalobusha				
1970	---	83.8	16.2	24.2	1970	30.2	56.9	12.9	24.4
1960	---	58.7	41.3	25.4	1960	25.6	30.7	43.6	25.6
1950	---	27.9	72.1	27.9	1950	21.2	15.4	63.5	31.1
Wilkinson					Yazoo				
1970	---	89.0	11.0	16.5	1970	39.5	50.7	9.8	29.1
1960	---	77.4	22.6	19.6	1960	35.5	29.5	35.0	33.7
1950	---	49.9	50.1	20.9	1950	27.3	15.0	57.8	38.1

Source: Proportions for 1970 computed from data in Table 1; U. S. Bureau of the Census, 1970 Census of Population, Report PC(1)-A1, Table 7; Report PC(1)-C1, Corrected Table 142; 1960, Volume 1, Part 1, Table 107; Report PC(1)-C1, Tables 65 and 104; Report PC(1)-26C, Table 35; Report PC(1)-26A, Table 6; 1950, Volume 2, Part 1, Tables 9 and 58; Part 24 (Washington, D.C.: USGPO), Table 12; Mississippi Density figure from Ellen S. Bryant, Population Growth and Redistrubution in Mississippi, 1900-1970, Bulletin No. 790 (Mississippi State: MAFES, December, 1971), Table 7.

TABLE 5.-PERCENTAGE DISTRIBUTION OF POPULATION BY RACE AND URBAN-RURAL RESIDENCE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Population(1)				Area and Race	Percent of Population(1)			
	Total	Urban	Rural Nonfarm	Rural Farm		Total	Urban	Rural Nonfarm	Rural Farm
United States					Adams				
Total	100.0	73.5	22.4	4.1	Total	100.0	52.8	46.3	0.
White	87.6	63.5	20.3	3.8	White	52.1	26.1	25.6	0.
Negro	11.1	9.0	1.9	0.2	Nonwhite	47.9	26.7	20.7	0.
South					Alcorn				
Total	100.0	64.6	30.7	4.7	Total	100.0	42.6	46.5	10.
Non-Negro	81.0	51.8	25.2	4.0	White	88.1	34.2	43.6	10.
Negro	19.0	12.8	5.5	0.7	Nonwhite	11.9	8.4	2.9	0.
E. S. C.(2)					Amite				
Total	100.0	54.6	37.0	8.3	Total	100.0	---(3)	79.5	20.
Non-Negro	79.9	42.3	3.4	7.1	White	49.6	---	38.8	10.
Negro	20.1	12.3	6.6	1.2	Nonwhite	50.4	---	40.7	9
Mississippi					Attala				
Total	100.0	44.5	46.0	9.5	Total	100.0	37.1	46.5	16
White	62.9	29.5	28.0	5.4	White	59.1	23.1	26.4	9
Nonwhite	37.1	15.1	17.9	4.1	Nonwhite	40.9	14.0	20.1	6

(1) Three distributions each add to 100% of the state or county total. These are: (a) The three cells giving the percents for residence totals, horizontally; (b) The two cells giving the total race proportions, vertically; and (c) The six remaining cells which give proportions for cross-classified populations. Rounding may resul in sums of 99.9% or 100.0%.

(2) East South Central. (3) Dashes indicate no urban population.

Table 5. (continued)

Area and Race	Percent of Population(1)			
	Total	Urban	Rural	
			Nonfarm	Farm
Benton				
Total	100.0	---	75.1	24.9
White	58.0	---	44.7	13.3
Nonwhite	42.0	---	30.4	11.5
Bolivar				
Total	100.0	42.1	51.7	6.3
White	38.5	21.6	13.7	3.2
Nonwhite	61.5	20.4	38.0	3.1
Calhoun				
Total	100.0	---	76.7	23.3
White	73.9	---	56.3	17.6
Nonwhite	26.1	---	20.4	5.7
Carroll				
Total	100.0	---	78.7	21.3
White	49.2	---	39.1	10.1
Nonwhite	50.8	---	39.6	11.2
Chickasaw				
Total	100.0	34.0	52.8	13.2
White	64.4	23.5	31.4	9.6
Nonwhite	35.6	10.6	21.4	3.6
Choctaw				
Total	100.0	---	82.7	17.3
White	72.0	---	58.9	13.1
Nonwhite	28.0	---	23.8	4.2
Claiborne				
Total	100.0	26.3	60.2	13.6
White	25.4	9.4	10.6	5.4
Nonwhite	74.6	16.9	49.5	8.2
Clarke				
Total	100.0	18.5	71.8	9.8
White	64.0	12.6	43.6	7.8
Nonwhite	36.0	5.8	28.2	2.0
Clay				
Total	100.0	45.2	43.8	11.0
White	50.6	26.7	17.8	6.1
Nonwhite	49.4	18.5	26.0	4.9
Coahoma				
Total	100.0	53.6	34.4	12.0
White	35.1	24.2	8.3	2.6
Nonwhite	64.9	29.4	26.1	9.4
Copiah				
Total	100.0	35.0	56.0	9.0
White	49.7	17.3	26.2	6.3
Nonwhite	50.3	17.7	29.8	2.7
Covington				
Total	100.0	---	81.9	18.1
White	67.4	---	53.6	13.8
Nonwhite	32.6	---	28.3	4.3
DeSoto				
Total	100.0	24.9	64.3	10.8
White	64.8	24.9	36.2	3.8
Nonwhite	35.2	---	28.1	7.0
Forrest				
Total	100.0	77.7	20.9	1.4
White	75.3	58.1	15.9	1.3
Nonwhite	24.7	19.6	5.0	0.1
Franklin				
Total	100.0	---	92.3	7.7
White	61.1	---	55.2	5.9
Nonwhite	38.9	---	37.1	1.8
George				
Total	100.0	---	91.8	8.2
White	88.3	---	80.3	8.0
Nonwhite	11.7	---	11.5	0.2
Greene				
Total	100.0	---	86.9	13.1
White	77.8	---	66.1	11.8
Nonwhite	22.2	---	20.8	1.4
Grenada				
Total	100.0	50.1	44.9	5.1
White	56.2	28.2	25.3	2.7
Nonwhite	43.8	21.9	19.6	2.3
Hancock				
Total	100.0	57.8	39.7	2.5
White	85.7	47.8	35.4	2.5
Nonwhite	14.3	10.0	4.3	---
Harrison				
Total	100.0	83.2	16.4	0.4
White	82.7	66.8	15.5	0.4
Nonwhite	17.3	16.4	8.8	---
Hinds				
Total	100.0	83.9	14.3	1.8
White	60.8	53.0	7.1	0.7
Nonwhite	39.2	30.9	7.1	1.1
Holmes				
Total	100.0	23.8	60.3	15.9
White	31.7	11.9	15.8	3.9
Nonwhite	68.3	11.9	44.5	12.0
Humphreys				
Total	100.0	21.2	56.5	22.3
White	35.1	8.2	18.8	8.1
Nonwhite	64.9	13.0	37.7	14.2
Issaquena				
Total	100.0	---	74.5	25.5
White	38.0	---	22.8	15.2
Nonwhite	62.0	---	51.7	10.3
Itawamba				
Total	100.0	17.2	69.0	13.8
White	94.5	15.5	65.8	13.2
Nonwhite	5.5	1.7	3.2	0.6
Jackson				
Total	100.0	71.6	27.8	0.5
White	83.7	57.0	26.2	0.5
Nonwhite	16.3	14.7	1.6	---
Jasper				
Total	100.0	---	86.5	13.5
White	53.6	---	43.7	9.8
Nonwhite	46.4	---	42.8	3.7
Jefferson				
Total	100.0	---	80.3	19.7
White	24.7	---	16.4	8.3
Nonwhite	75.3	---	63.9	11.3

Table 5. (continued)

Area and Race	Percent of Population(1)			
	Total	Urban	Rural	
			Nonfarm	Farm
Jefferson Davis				
Total	100.0	---	79.1	20.9
White	49.8	---	37.7	12.1
Nonwhite	50.2	---	41.4	8.8
Jones				
Total	100.0	51.1	43.3	5.6
White	75.3	33.2	37.3	4.8
Nonwhite	24.7	17.8	6.0	0.8
Kemper				
Total	100.0	---	66.0	34.0
White	43.4	---	30.4	12.9
Nonwhite	56.6	---	35.6	21.0
Lafayette				
Total	100.0	57.5	35.1	7.3
White	71.7	47.0	20.2	4.5
Nonwhite	28.3	10.5	14.9	2.8
Lamar				
Total	100.0	2.1	90.1	7.9
White	86.8	2.1	77.0	7.7
Nonwhite	13.2	---	13.1	0.1
Lauderdale				
Total	100.0	67.2	30.7	2.1
White	69.0	44.6	22.9	1.4
Nonwhite	31.0	22.6	7.8	0.6
Lawrence				
Total	100.0	---	89.1	10.9
White	67.8	---	59.1	8.7
Nonwhite	32.2	---	30.0	2.2
Leake				
Total	100.0	17.7	58.8	23.4
White	60.7	13.7	32.7	14.3
Nonwhite	39.3	4.0	26.1	9.2
Lee				
Total	100.0	44.4	49.0	6.6
White	79.3	36.6	37.6	5.0
Nonwhite	20.7	7.8	11.4	1.6
Leflore				
Total	100.0	53.2	37.2	9.6
White	41.8	26.5	13.0	2.3
Nonwhite	58.2	26.7	24.2	7.3
Lincoln				
Total	100.0	40.8	47.9	11.2
White	69.2	25.4	34.9	8.9
Nonwhite	30.8	15.4	13.0	2.4
Lowndes				
Total	100.0	60.3	34.2	5.6
White	67.2	40.0	23.9	3.3
Nonwhite	32.8	20.2	10.3	2.2
Madison				
Total	100.0	35.3	53.5	11.2
White	37.6	15.3	18.8	3.4
Nonwhite	62.4	20.0	34.7	7.7
Marion				
Total	100.0	32.8	57.2	10.1
White	68.8	23.4	37.7	7.8
Nonwhite	31.2	9.4	19.5	2.3
Marshall				
Total	100.0	23.8	59.2	17.0
White	38.0	9.7	24.2	4.1
Nonwhite	62.0	14.1	35.0	12.9
Monroe				
Total	100.0	39.4	49.9	10.7
White	69.5	26.8	36.0	6.7
Nonwhite	30.5	12.6	13.9	4.0
Montgomery				
Total	100.0	42.5	44.0	13.5
White	55.2	25.9	21.8	7.5
Nonwhite	44.8	16.6	22.2	6.0
Neshoba				
Total	100.0	30.6	50.6	18.8
White	74.0	21.0	38.8	14.2
Nonwhite	26.0	9.5	11.8	4.6
Newton				
Total	100.0	18.7	67.7	13.6
White	70.3	11.9	46.3	12.1
Nonwhite	29.7	6.8	21.4	1.5
Noxubee				
Total	100.0	20.1	54.2	25.7
White	33.9	10.5	14.8	8.6
Nonwhite	66.1	9.6	39.4	17.1
Oktibbeha				
Total	100.0	55.9	37.9	6.2
White	64.5	43.8	16.9	3.8
Nonwhite	35.5	12.1	21.0	2.4
Panola				
Total	100.0	14.1	68.9	16.9
White	48.7	11.6	28.8	8.3
Nonwhite	51.3	2.6	40.1	8.6
Pearl River				
Total	100.0	37.6	58.4	4.0
White	81.5	24.9	52.8	3.8
Nonwhite	18.5	12.7	5.7	.2
Perry				
Total	100.0	---	87.6	12.4
White	73.6	---	63.4	10.2
Nonwhite	26.4	---	24.2	2.2
Pike				
Total	100.0	37.3	56.7	6.1
White	56.4	24.9	27.8	3.8
Nonwhite	43.6	12.3	28.9	2.3
Pontotoc				
Total	100.0	19.9	59.1	21.1
White	81.9	16.6	46.9	18.4
Nonwhite	18.1	3.3	12.2	2.6
Prentiss				
Total	100.0	29.3	55.7	15.0
White	88.6	24.8	49.1	14.6
Nonwhite	11.4	4.5	6.6	.4
Quitman				
Total	100.0	16.4	56.6	27.0
White	42.4	6.8	24.4	11.2
Nonwhite	57.6	9.6	32.2	15.8

Table 5. (continued)

Area and Race	Percent of Population(1)			
	Total	Urban	Rural	
			Nonfarm	Farm
Rankin				
Total	100.0	27.8	66.2	6.0
White	71.7	26.3	41.9	3.5
Nonwhite	28.3	1.5	24.4	2.5
Scott				
Total	100.0	31.4	55.6	13.0
White	66.9	21.4	36.4	9.0
Nonwhite	33.1	10.0	19.1	4.0
Sharkey				
Total	100.0	---	60.5	39.5
White	35.2	---	27.8	7.3
Nonwhite	64.8	---	32.7	32.2
Simpson				
Total	100.0	14.6	73.6	11.8
White	68.5	11.6	48.7	8.2
Nonwhite	31.5	3.0	24.9	3.6
Smith				
Total	100.0	---	75.6	24.4
White	78.3	---	56.6	21.7
Nonwhite	21.7	---	19.0	2.7
Stone				
Total	100.0	36.2	57.1	6.7
White	76.9	26.8	44.1	6.0
Nonwhite	23.1	9.4	13.0	.7
Sunflower				
Total	100.0	31.4	52.1	16.6
White	36.8	14.2	16.6	5.9
Nonwhite	63.2	17.1	35.5	10.7
Tallahatchie				
Total	100.0	13.6	40.6	45.8
White	39.6	6.5	19.9	13.2
Nonwhite	60.4	7.1	20.7	32.6
Tate				
Total	100.0	22.9	60.7	16.4
White	52.7	16.5	28.0	8.2
Nonwhite	47.3	6.4	32.7	8.2
Tippah				
Total	100.0	22.0	58.5	19.5
White	83.6	18.0	49.5	16.1
Nonwhite	16.4	4.0	9.0	3.4
Tishomingo				
Total	100.0	---	86.5	13.5
White	95.5	---	82.5	13.1
Nonwhite	4.5	---	4.0	0.4
Tunica				
Total	100.0	---	50.4	49.6
White	27.3	---	18.6	8.7
Nonwhite	72.7	---	31.8	40.9
Union				
Total	100.0	33.7	49.5	16.8
White	84.6	25.5	44.7	14.3
Nonwhite	15.4	8.1	4.8	2.5
Walthall				
Total	100.0	---	77.0	23.0
White	59.2	---	45.2	14.1
Nonwhite	40.8	---	31.8	9.0
Warren				
Total	100.0	56.9	40.8	2.3
White	58.9	28.7	29.0	1.2
Nonwhite	41.1	28.2	11.8	1.1
Washington				
Total	100.0	69.3	26.5	4.2
White	45.2	31.7	11.4	2.1
Nonwhite	54.8	37.6	15.1	2.1
Wayne				
Total	100.0	26.2	63.4	10.3
White	67.0	16.0	43.6	7.5
Nonwhite	33.0	10.2	19.9	2.8
Webster				
Total	100.0	---	83.8	16.2
White	77.5	---	62.8	14.8
Nonwhite	22.5	---	21.0	1.5
Wilkinson				
Total	100.0	---	89.0	11.0
White	32.3	---	29.6	2.7
Nonwhite	67.7	---	59.5	8.3
Winston				
Total	100.0	35.7	46.2	18.1
White	59.5	21.7	24.8	13.0
Nonwhite	40.5	14.0	21.4	5.1
Yalobusha				
Total	100.0	30.2	56.9	12.9
White	59.6	20.6	32.9	6.1
Nonwhite	40.4	9.6	24.0	6.8
Yazoo				
Total	100.0	39.5	50.7	9.8
White	46.6	15.8	26.1	4.7
Nonwhite	53.4	23.7	24.6	5.1

Source: Computed from data in Table 2.

TABLE 6.-COMPONENT OF POPULATION CHANGES FROM 1960 TO 1970, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES.

Area and Race	Components of Change			
			Net Migration	
	Births	Deaths	Number	Percent
United States				
Total	39,033,000	18,192,000	3,020,000	1.7
White	32,477,000	15,981,000	2,284,000	1.4
Nonwhite	6,556,000	2,211,000	-85,000	- 0.5(1)
South				
Total	12,642,000	5,410,000	-593,000	1.1
White	9,172,000	4,127,000	1,806,000	4.2
Nonwhite	3,470,000	1,283,000	1,380,000	-12.2(1)
E. S. C.(2)				
Total	2,665,000	1,213,000	-698,000	- 5.8
White	1,887,000	896,000	-153,000	- 1.6
Nonwhite	778,000	317,000	-560,000	-20.8(1)
Mississippi				
Total	533,907	227,742	-268,242	-12.3
White	250,045	123,898	8,739	0.7
Nonwhite	283,862	103,844	-276,981	-30.1
Adams				
Total	9,851	3,900	- 6,388	-16.9
White	4,399	1,513	- 2,555	-13.4
Nonwhite	5,452	2,387	- 3,833	-20.5
Alcorn				
Total	5,032	2,830	- 308	- 1.2
White	4,124	2,375	253	11.5
Nonawhite	911	455	- 561	-16.8
Amite				
Total	3,098	1,492	- 3,416	-21.9
White	923	747	- 492	- 6.9
Nonwhite	2,175	745	- 2,924	-34.6
Attala				
Total	4,662	2,438	- 3,989	-18.7
White	1,857	1,470	- 544	- 4.6
Nonwhite	2,805	968	- 3,445	-36.1
Benton				
Total	1,802	738	- 1,282	-16.6
White	629	450	57	1.4
Nonwhite	1,173	288	- 1,339	-37.1
Bolivar				
Total	16,690	5,946	- 15,799	-29.0
White	3,384	1,543	- 612	- 3.5
Nonwhite	13,306	4,403	- 15,187	-41.1
Calhoun				
Total	3,242	1,775	- 2,785	-17.5
White	1,962	1,411	- 1,339	-11.5
Nonwhite	1,280	364	- 1,446	-33.3
Carroll				
Total	2,168	1,179	- 2,769	-24.8
White	594	577	79	- 1.7
Nonwhite	1,574	602	- 2,690	-41.4

Area and Race	Components of Change			
			Net Migration	
	Births	Deaths	Number	Perce
Chickasaw				
Total	4,056	2,040	-2,102	-12.
White	2,052	1,240	- 373	- 3.
Nonwhite	2,004	800	-1,729	-26.
Choctaw				
Total	1,698	1,044	- 637	- 7.
White	938	747	- 25	- 0.
Nonwhite	760	297	- 612	-24.
Claiborne				
Total	2,305	1,255	-1,809	-16.
White	380	332	- 112	- 4.
Nonwhite	1,925	923	-1,697	-20.
Clarke				
Total	3,191	1,932	-2,703	-16.
White	1,541	1,208	- 703	- 7.
Nonwhite	1,650	724	-2,000	-30.
Clay				
Total	4,353	1,892	-2,554	-13.
White	1,697	869	- 525	- 5.
Nonwhite	2,656	1,023	-2,029	-20.
Coahoma				
Total	12,997	5,533	-13,229	-28
White	2,781	1,460	-1,719	-11
Nonwhite	10,216	4,073	-11,510	-36
Copiah				
Total	5,894	3,239	-4,957	-18
White	2,027	1,691	-1,030	- 7
Nonwhite	3,867	1,548	-3,927	-28
Covington				
Total	3,109	1,482	-1,262	- 9
White	1,674	982	- 162	- 1
Nonwhite	1,435	500	-1,100	-23
DeSoto				
Total	7,745	2,386	6,635	27
White	3,097	1,046	11,936	129
Nonwhite	4,648	1,340	-5,301	-36
Forrest				
Total	12,407	5,728	-1,552	- 2
White	7,896	3,628	1,286	3
Nonwhite	4,511	2,100	-2,838	-19
Franklin				
Total	1,668	1,145	-1,798	-19
White	710	704	- 595	-10
Nonwhite	958	441	-1,203	-31
George				
Total	2,955	996	- 598	- 5
White	2,467	852	- 419	- 4
Nonwhite	488	144	- 179	-11

(1) Net Migration Nonwhite figures are actually Negro figures for United States, South, and East South Centr

(2) East South Central.

Table 6.-(continued)

Area and Race	Components of Change			
	Births	Deaths	Net Migration Number	Net Migration Percent
Greene				
Total	1,787	836	- 772	- 9.2
White	1,201	619	- 363	- 5.6
Nonwhite	586	217	- 409	-21.3
Grenada				
Total	4,736	2,118	-1,173	- 6.4
White	1,842	971	93	1.0
Nonwhite	2,894	1,147	-2,104	-23.2
Hancock				
Total	3,233	1,642	1,757	12.5
White	2,634	1,385	1,861	15.8
Nonwhite	599	257	- 104	- 4.6
Harrison				
Total	34,801	9,763	-9,945	- 8.3
White	27,503	7,553	-9,122	- 9.1
Nonwhite	7,298	2,210	- 823	- 4.3
Hinds				
Total	48,908	16,633	-4,344	- 2.3
White	23,100	8,762	4,052	3.6
Nonwhite	25,808	7,871	-8,396	-11.2
Holmes				
Total	6,549	3,477	-7,048	-26.0
White	974	1,000	- 224	- 2.9
Nonwhite	5,575	2,477	-6,824	-35.0
Humphreys				
Total	5,213	2,048	-7,657	-40.1
White	983	598	-1,054	-18.3
Nonwhite	4,230	1,450	-6,603	-49.5
Issaquena				
Total	835	378	-1,296	-36.2
White	174	95	- 222	-18.9
Nonwhite	661	283	-1,074	-44.8
Itawamba(3)				
Total	2,459	1,413	721	4.8
White				
Nonwhite				
Jackson				
Total	17,782	4,329	19,000	34.2
White	13,481	3,252	18,657	41.8
Nonwhite	4,301	1,077	343	3.2
Jasper				
Total	3,565	1,832	-2,648	-15.7
White	1,257	946	- 149	- 1.8
Nonwhite	2,308	886	-2,499	-29.4
Jefferson				
Total	2,181	1,290	-1,738	-17.1
White	296	395	94	3.8
Nonwhite	1,885	895	-1,644	-21.5
Jefferson Davis				
Total	2,649	1,404	-1,849	-13.7
White	948	663	24	0.4
Nonwhite	1,701	741	-1,873	-25.3
Jones				
Total	11,497	5,873	-8,809	-14.8
White	7,349	4,072	-4,969	-11.3
Nonwhite	4,148	1,801	-3,840	-24.9
Kemper				
Total	2,297	1,249	-3,092	-25.2
White	497	607	- 230	- 4.8
Nonwhite	1,800	642	-2,862	-38.4
Lafayette				
Total	4,988	1,966	- 196	- 0.9
White	2,739	1,217	1,681	11.9
Nonwhite	2,249	749	-1,877	-25.9
Lamar				
Total	3,028	1,329	- 165	- 1.2
White	2,416	1,066	394	3.4
Nonwhite	612	263	- 599	-25.0
Lauderdale				
Total	15,958	7,844	-8,146	-12.1
White	8,579	4,705	-1,323	- 3.0
Nonwhite	7,379	3,139	-6,823	-29.1
Lawrence				
Total	2,247	1,307	- 18	- 0.2
White	1,220	821	800	12.6
Nonwhite	1,027	486	- 818	-21.2
Leake				
Total	3,416	1,961	-3,030	-16.2
White	1,466	1,255	- 318	- 3.0
Nonwhite	1,950	706	-2,712	-33.5
Lee				
Total	10,352	4,265	- 528	- 1.3
White	7,215	3,051	2,107	7.0
Nonwhite	3,137	1,214	-2,635	-25.6
Leflore				
Total	13.311	5,338	-13,004	-27.6
White	3,428	1,843	- 734	- 4.4
Nonwhite	9,883	3,495	-12,270	-40.3
Lincoln				
Total	5,372	2,970	-2,963	-11.1
White	2,995	1,960	-1,304	- 7.1
Nonwhite	2,377	1,010	-1,659	-19.9
Lowndes				
Total	13,057	4,541	-5,455	-11.7
White	7,058	2,316	- 277	- 1.0
Nonwhite	5,999	2,225	-5,178	-29.1
Madison				
Total	8,810	3,503	-8,474	-25.8
White	1,678	1,040	-1,243	-13.4
Nonwhite	7,132	2,463	-9,717	-41.1
Marion				
Total	5,133	2,372	-3,183	-13.7
White	2,928	1,530	-1,067	- 6.9
Nonwhite	2,205	842	-2,116	-26.8

3) Nonwhite population is too small to justify computation.

Table 6.-(continued)

Area and Race	Components of Change				Area and Race	Components of Change			
	Births	Deaths	Net Migration Number	Net Migration Percent		Births	Deaths	Net Migration Number	Net Migration Percent
Marshall					Rankin				
Total	6,775	2,526	-4,725	-19.3	Total	7,685	2,646	4,572	13.3
White	1,514	862	1,185	16.3	White	4,708	1,641	6,958	32.4
Nonwhite	5,261	1,664	-5,910	-34.3	Nonwhite	2,977	1,005	-2,386	-18.6
Monroe					Scott				
Total	7,367	3,588	-3,689	-10.9	Total	4,860	2,368	-2,310	-10.9
White	4,146	2,261	- 177	- 0.8	White	2,723	1,463	- 56	- 0.4
Nonwhite	3,221	1,327	-3,512	-29.2	Nonwhite	2,137	905	-2,254	-27.7
Montgomery					Sharkey				
Total	2,980	1,608	-1,774	-13.3	Total	2,934	1,211	-3,524	-32.8
White	1,170	1,007	- 391	- 5.3	White	537	330	- 329	-10.1
Nonwhite	1,810	601	-1,383	-23.2	Nonwhite	2,397	881	-3,195	-42.7
Neshoba					Simpson				
Total	4,010	2,207	-1,928	- 9.2	Total	4,268	2,243	-2,532	-12.4
White	2,292	1,610	- 617	- 4.1	White	2,353	1,558	- 371	- 2.8
Nonwhite	1,718	597	-1,311	-22.2	Nonwhite	1,915	685	-2,161	-30.0
Newton					Smith				
Total	3,770	2,325	-1,979	-10.1	Total	2,922	1,406	-2,258	-15.8
White	1,841	1,569	130	1.0	White	1,649	1,091	- 995	- 9.0
Nonwhite	1,929	756	-2,109	-32.1	Nonwhite	1,273	315	-1,263	-38.9
Noxubee					Stone				
Total	4,198	1,914	-4,822	-28.7	Total	1,571	742	259	3.7
White	724	573	- 31	- 0.7	White	962	539	494	9.3
Nonwhite	3,474	1,371	-4,791	-39.6	Nonwhite	609	203	- 236	-13.8
Oktibbeha					Sunflower				
Total	6,422	2,266	-1,579	- 6.0	Total	12,480	4,507	-16,676	-36.5
White	2,833	1,059	2,068	14.0	White	2,264	1,385	1,990	-13.5
Nonwhite	3,589	1,207	-3,647	-31.9	Nonwhite	10,216	3,122	-14,686	-47.3
Panola					Tallahatchie				
Total	7,643	3,219	-6,386	-22.2	Total	6,873	2,645	-8,971	-37.3
White	2,348	1,349	- 503	- 4.0	White	1,374	966	-1,331	-15.5
Nonwhite	5,295	1,870	-5,883	-36.3	Nonwhite	5,499	1,679	-7,640	-49.3
Pearl River					Tate				
Total	5,342	2,469	2,518	11.2	Total	4,905	1,783	-2,716	-15.0
White	3,892	1,881	3,519	20.4	White	1,373	809	1,517	19.7
Nonwhite	1,513	588	-1,001	-19.3	Nonwhite	3,532	974	-4,233	-40.5
Perry					Tippah				
Total	1,978	904	- 754	- 8.6	Total	3,188	1,607	- 822	- 5.4
White	1,360	637	- 382	- 6.0	White	2,445	1,322	- 200	- 1.6
Nonwhite	618	267	- 372	-15.4	Nonwhite	743	285	- 622	-22.6
Pike					Tishomingo(3)				
Total	7,118	4,102	-6,323	-18.0	Total	2,447	1,550	154	1.1
White	3,194	2,292	-2,654	-13.5	White				
Nonwhite	3,924	1,810	-3,669	-23.8	Nonwhite				
Pontotoc					Tunica				
Total	3,140	2,046	- 963	- 5.6	Total	5,158	1,907	-8,223	-48.9
White	2,299	1,714	277	2.0	White	632	339	- 573	-16.3
Nonwhite	841	332	- 686	-20.9	Nonwhite	4,526	1,568	-7,650	-57.4
Prentiss					Union				
Total	3,813	2,016	387	2.2	Total	3,529	2,012	-1,325	- 7.0
White	3,063	1,759	709	4.5	White	2,639	1,628	- 449	- 2.9
Nonwhite	750	257	- 322	-14.7	Nonwhite	899	384	- 876	-26.4
Quitman					Walthall				
Total	6,043	2,228	-8,946	-42.6	Total	2,761	1,320	-2,453	-18.2
White	1,536	730	-1,834	-23.8	White	1,096	761	- 344	- 4.6
Nonwhite	4,507	1,498	-7,112	-53.5	Nonwhite	1,665	559	-2,109	-34.6

Table 6.-(continued)

Area and Race	Components of Change				Area and Race	Components of Change			
			Net Migration					Net Migration	
	Births	Deaths	Number	Percent		Births	Deaths	Number	Percent
Warren					Wilkinson				
Total	10,395	5,417	-2,203	- 5.2	Total	3,046	1,364	-3,818	-28.8
White	4,807	2,296	1,516	6.8	White	711	500	- 420	-11.0
Nonwhite	5,588	3,121	-3,719	-18.8	Nonwhite	2,335	864	-3,398	-36.0
Washington					Winston				
Total	21,559	8,593	-21,023	-26.7	Total	3,806	1,998	-2,648	-73.8
White	7,483	2,662	-8,257	-23.4	White	1,561	1,279	- 70	0.6
Nonwhite	14,076	5,931	-12,766	-29.4	Nonwhite	2,245	719	-2,578	-30.7
Wayne					Yalobusha				
Total	3,656	1,721	-1,543	- 9.5	Total	2,521	1,638	-1,470	-11.8
White	2,033	1,023	- 290	- 2.8	White	998	1,037	148	2.1
Nonwhite	1,623	698	-1,253	-21.6	Nonwhite	1,523	601	-1,618	-29.2
Webster					Yazoo				
Total	1,906	1,196	-1,243	-11.7	Total	7,746	3,794	-8,301	-26.2
White	1,151	972	- 328	- 4.1	White	2,385	1,421	-1,136	- 8.8
Nonwhite	755	224	- 915	-34.6	Nonwhite	5,361	2,373	-7,165	-38.1

Source: Copied and computed from U.S. Bureau of the Census, 1970 Census of Population and Housing, Report PHC(2)-26, pp. 10-12; U.S. Department of Commerce News, March 3, 1971 CB71-34 (Washington, D.C.: USGPO), Tables 1, 2, and 3.

TABLE 7.-PERCENTAGE DISTRIBUTION OF THE 1970 POPULATION FIVE YEARS OLD AND OLDER BY AREA OF RESIDENCE IN 1965(1), BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES.(2)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
nited States							
Total	53.0	23.3	8.4	1.8	2.3	2.8	1.7
White	53.3	22.5	9.0	1.9	2.5	2.8	1.8
Negro	51.4	29.8	4.2	0.8	0.9	3.2	0.4
outh							
Total	50.8	23.5	8.5	1.9	2.2	4.8	1.4
White	49.8	22.4	9.4	2.1	2.6	5.4	1.6
Negro	55.6	28.4	4.4	0.6	0.5	2.5	0.3
. S. C.(3)							
Total	53.8	25.8	6.6	0.6	2.3	4.3	0.7
White	53.0	24.9	7.4	0.7	2.6	4.9	0.8
Negro	57.6	29.7	3.4	0.3	0.9	1.6	0.2

1) For instance, the table shows that 50.8% of the South's population lived in the same house in 1970 as in 1965 and at 23.5% lived in a different house but in the same county; 8.5% lived in a different county in the same state in 1970 mpared with 1965; and 1.4% of the South's 1970 population lived in a Western state in 1965.

2) Unreported residence and foreign residence are omitted from the table. (3) East South Central.

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
Mississippi							
Total	55.4	23.5	7.4	0.5	1.4	5.1	0.8
White	53.0	20.8	9.2	0.7	1.6	7.4	1.2
Negro	59.8	28.4	4.1	0.1	1.0	1.0	0.2
Adams							
Total	60.3	24.9	4.1	0.2	0.6	5.4	0.2
White	56.4	22.2	6.2	0.2	0.8	9.6	0.3
Negro	64.6	27.9	1.7	0.1	0.4	0.9	0.1
Alcorn							
Total	59.0	23.0	3.2	0.2	1.6	5.4	0.5
White	58.9	22.2	3.6	0.1	1.6	5.8	0.5
Negro	61.0	29.7	0.8	0.0	1.7	2.0	0.0
Amite							
Total	63.2	21.7	5.5	0.0	0.3	4.5	0.1
White	63.9	15.8	9.0	0.1	0.5	6.9	0.1
Negro	62.5	27.8	1.8	0.0	0.2	1.9	0.0
Attala							
Total	58.3	25.4	6.0	0.2	1.1	1.9	0.4
White	61.6	20.5	6.6	0.2	0.7	2.6	0.6
Negro	53.6	32.9	4.4	0.3	1.6	0.8	0.0
Benton							
Total	50.3	28.9	7.7	0.0	0.3	4.6	0.0
White	52.1	24.5	10.4	0.0	0.3	6.6	0.0
Negro	47.6	35.4	3.8	0.0	0.3	1.9	0.0
Bolivar							
Total	52.0	31.5	9.0	0.0	1.0	2.2	0.2
White	50.8	23.6	16.3	0.1	0.7	4.4	0.2
Negro	52.9	36.9	4.1	0.0	1.3	0.7	0.2
Calhoun							
Total	61.0	23.8	5.3	0.0	0.2	1.5	0.2
White	67.0	18.1	6.2	0.0	0.0	2.0	0.2
Negro	43.4	40.2	2.8	0.0	0.8	0.0	0.0
Carroll							
Total	57.9	22.5	8.8	0.0	0.3	1.3	0.0
White	59.1	19.5	13.4	0.0	0.0	1.2	0.0
Negro	56.5	25.6	4.2	0.0	0.5	1.4	0.0
Chickasaw							
Total	56.1	25.2	8.6	0.1	1.1	1.9	0.7
White	55.9	24.7	9.8	0.0	1.3	2.6	1.0
Negro	56.6	26.2	6.2	0.1	0.8	0.7	0.2
Choctaw							
Total	66.2	18.1	7.4	0.1	0.3	2.8	0.7
White	63.4	18.0	8.1	0.0	0.5	3.8	1.0
Negro	73.8	18.4	5.6	0.2	0.0	0.0	0.0
Claiborne							
Total	59.4	20.0	8.5	0.1	1.6	1.3	0.3
White	65.6	11.1	10.1	0.0	0.7	3.2	1.0
Negro	57.2	23.1	7.9	0.1	1.8	0.7	0.1
Clarke							
Total	62.6	21.6	4.8	0.5	0.6	4.5	0.2
White	59.7	21.1	6.7	0.4	0.4	6.3	0.4
Negro	68.0	22.6	1.4	0.6	1.0	1.1	0.0

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
Clay							
Total	60.5	22.9	7.2	0.1	1.2	3.2	0.8
White	59.4	20.1	8.9	0.2	1.8	4.3	1.4
Negro	61.8	25.9	5.4	0.0	0.5	2.0	0.1
Coahoma							
Total	51.3	29.8	7.3	0.1	1.2	2.6	0.3
White	46.2	28.2	10.2	0.2	1.2	6.0	0.6
Negro	54.1	30.8	5.7	0.0	1.3	0.7	0.1
Copiah							
Total	67.0	18.9	5.2	0.0	0.7	2.2	0.5
White	64.6	15.2	9.0	0.0	0.8	3.9	1.0
Negro	69.6	22.7	1.3	0.1	0.5	0.4	0.1
Covington							
Total	65.7	17.3	6.9	0.3	0.4	3.4	0.4
White	64.3	16.8	8.2	0.0	0.6	4.3	0.6
Negro	68.5	18.5	4.0	0.9	0.0	1.4	0.0
DeSoto							
Total	46.7	20.2	5.0	0.1	1.1	19.0	0.5
White	41.9	15.1	5.9	0.1	1.6	27.2	0.6
Negro	55.9	30.1	3.1	0.0	0.1	3.2	0.4
Forrest							
Total	52.4	19.4	12.1	0.3	1.1	8.5	0.8
White	48.4	18.6	14.5	0.4	1.1	10.6	1.0
Negro	65.4	21.9	4.3	0.1	0.9	0.9	0.2
Franklin							
Total	69.1	20.2	4.5	0.0	0.6	3.2	0.1
White	62.8	22.4	6.7	0.0	0.2	4.9	0.0
Negro	79.3	16.6	1.0	0.0	1.1	0.6	0.4
George							
Total	66.1	20.1	3.6	0.2	0.3	4.4	0.0
White	64.3	20.4	4.0	0.2	0.4	5.0	0.1
Negro	79.3	17.8	0.5	0.0	0.0	0.0	0.0
Greene							
Total	72.1	16.5	3.5	0.0	0.6	3.2	0.9
White	74.4	15.0	3.5	0.0	0.4	3.2	1.0
Negro	64.5	22.1	3.3	0.0	1.1	3.4	0.4
Grenada							
Total	55.0	26.2	9.6	0.2	0.9	2.1	0.5
White	56.3	20.1	13.0	0.2	0.6	3.3	0.6
Negro	53.1	34.5	4.9	0.1	1.4	0.4	0.3
Hancock							
Total	53.7	21.5	4.4	0.3	1.5	11.4	1.3
White	53.6	20.4	4.5	0.3	1.1	12.6	1.5
Negro	54.6	28.9	3.5	0.0	3.5	3.4	0.0
Harrison							
Total	38.6	20.0	4.5	3.9	4.8	13.0	4.3
White	36.5	19.0	4.5	4.4	5.3	14.5	4.6
Negro	49.7	25.2	4.6	1.4	2.3	5.1	1.9
Hinds							
Total	54.3	24.7	8.7	0.3	1.2	5.4	0.5
White	51.4	22.6	10.9	0.4	1.4	8.1	0.7
Negro	59.2	28.0	5.1	0.1	1.0	0.9	0.1
Holmes							
Total	59.1	27.7	6.5	0.1	0.9	1.6	0.3
White	58.3	19.5	12.3	0.2	0.4	3.8	0.7
Negro	59.3	31.9	3.7	0.0	1.2	0.5	0.1

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
Humphreys							
Total	61.4	25.4	5.0	0.0	1.0	0.8	0.2
White	55.9	23.8	9.0	0.0	0.2	2.0	0.4
Negro	64.7	26.3	2.8	0.0	1.4	0.1	0.0
Issaquena							
Total	54.7	25.0	13.4	0.0	0.0	5.1	0.2
White	49.9	26.1	14.6	0.0	0.0	10.2	0.5
Negro	57.9	24.3	12.6	0.0	0.0	1.8	0.0
Itawamba							
Total	59.8	24.9	4.4	0.0	4.5	3.3	0.2
White	59.7	24.7	4.6	0.0	4.4	3.5	0.1
Negro	60.6	29.3	1.2	0.0	4.9	0.0	2.0
Jackson							
Total	46.1	20.4	9.0	1.5	2.1	9.6	2.8
White	44.0	19.2	9.8	1.7	2.4	10.8	3.1
Negro	57.7	27.0	5.1	0.2	0.2	3.2	1.1
Jasper							
Total	66.8	19.1	6.2	0.2	0.5	2.9	0.1
White	62.7	17.3	10.0	0.0	0.8	4.9	0.3
Negro	71.7	21.2	1.6	0.5	0.1	0.5	0.0
Jefferson							
Total	67.0	21.4	3.4	0.0	2.7	1.1	0.0
White	75.1	12.0	9.6	0.0	0.6	1.3	0.0
Negro	64.3	24.6	1.3	0.0	3.4	1.1	0.0
Jefferson Davis							
Total	68.5	16.0	7.1	0.1	0.1	2.6	0.3
White	64.9	14.7	8.7	0.2	0.1	3.9	0.0
Negro	72.2	17.4	5.5	0.0	0.1	1.3	0.6
Jones							
Total	60.3	21.2	7.5	0.1	0.6	4.1	0.4
White	59.9	20.5	7.8	0.2	0.6	5.2	0.5
Negro	61.2	23.3	6.5	0.1	0.9	0.6	0.1
Kemper							
Total	71.2	17.5	4.8	0.0	0.7	2.8	0.0
White	67.6	14.2	8.0	0.0	0.8	5.8	0.0
Negro	74.6	21.1	1.6	0.0	0.6	0.2	0.0
Lafayette							
Total	48.6	15.2	17.2	0.9	2.4	9.1	1.1
White	40.2	12.8	22.2	1.2	3.1	12.2	1.5
Negro	72.0	21.7	3.5	0.3	0.6	0.3	0.0
Lamar							
Total	56.8	20.0	12.2	0.0	0.4	4.8	0.8
White	55.4	19.0	14.0	0.0	0.4	5.1	1.0
Negro	65.8	26.3	0.0	0.0	0.3	2.9	0.0
Lauderdale							
Total	58.4	20.4	4.5	0.9	1.6	6.2	1.6
White	55.4	18.8	5.3	1.1	2.0	8.5	2.2
Negro	66.1	24.3	2.5	0.4	0.7	0.8	0.1
Lawrence							
Total	63.2	15.5	6.2	0.0	1.5	7.5	0.5
White	58.2	15.3	7.6	0.0	1.4	9.9	0.7
Negro	74.2	16.0	3.3	0.2	1.7	2.1	0.0
Leake							
Total	61.1	24.8	6.9	0.0	0.6	1.6	0.2
White	58.4	24.2	9.8	0.0	0.4	2.5	0.4
Negro	64.7	26.1	1.6	0.0	1.0	0.3	0.0

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
Lee							
Total	54.7	23.8	9.7	0.2	2.1	4.6	0.6
White	53.3	22.0	11.0	0.2	2.5	5.7	0.7
Negro	60.1	31.1	4.4	0.0	0.7	0.3	0.2
Leflore							
Total	54.0	32.7	7.7	0.0	0.8	2.5	0.5
White	50.3	30.4	10.9	0.1	0.6	4.2	1.1
Negro	56.9	32.9	5.3	0.0	1.0	1.2	0.1
Lincoln							
Total	59.7	23.5	4.3	0.1	0.8	4.0	0.3
White	60.3	22.5	5.0	0.2	0.4	4.9	0.4
Negro	58.3	25.8	2.8	0.0	1.2	2.1	0.1
Lowndes							
Total	46.2	22.6	7.6	0.6	2.2	8.5	1.4
White	40.6	18.9	10.1	0.9	3.0	11.5	1.9
Negro	58.2	30.7	2.1	0.2	0.5	2.1	0.2
Madison							
Total	60.6	24.3	8.3	0.4	1.0	1.8	0.5
White	59.4	18.2	13.9	1.0	0.6	3.9	0.5
Negro	61.4	28.3	4.7	0.0	1.2	0.4	0.5
Marion							
Total	63.5	19.9	4.0	0.2	0.8	3.1	0.3
White	62.9	19.3	5.2	0.2	0.9	4.1	0.4
Negro	64.8	21.2	1.5	0.1	0.6	0.6	0.0
Marshall							
Total	58.2	24.9	4.3	0.0	0.7	7.1	0.2
White	53.1	17.5	6.3	0.0	1.0	14.5	0.5
Negro	61.5	29.7	3.1	0.0	0.6	2.4	0.0
Monroe							
Total	58.5	26.8	4.6	0.1	1.4	4.0	0.4
White	59.5	23.5	5.5	0.1	1.3	5.4	0.5
Negro	56.1	34.7	2.3	0.1	1.5	0.5	0.2
Montgomery							
Total	62.8	22.7	8.0	0.1	1.0	1.0	0.3
White	59.3	20.9	12.3	0.1	0.7	1.5	0.5
Negro	67.5	25.0	2.4	0.0	1.4	0.4	0.0
Neshoba							
Total	60.7	21.7	9.1	0.2	0.8	2.9	0.6
White	63.4	18.6	8.8	0.3	0.7	3.5	0.7
Negro	55.0	28.1	11.6	0.2	1.0	1.3	0.0
Newton							
Total	62.0	18.7	8.3	0.3	1.1	2.3	0.5
White	61.9	17.0	10.0	0.5	1.2	2.5	0.6
Negro	63.1	23.9	3.8	0.0	0.9	1.8	0.6
Noxubee							
Total	61.8	29.0	2.8	0.3	0.9	1.5	0.0
White	64.5	20.9	6.4	0.9	2.0	3.0	0.0
Negro	60.6	33.5	0.7	0.0	0.3	0.7	0.0
Oktibbeha							
Total	42.0	21.7	19.6	0.2	1.3	6.7	0.7
White	34.8	17.2	27.0	0.2	1.5	9.9	1.0
Negro	56.7	30.8	5.2	0.0	1.1	0.4	0.0
Panola							
Total	55.9	27.0	6.5	0.0	0.6	3.1	0.2
White	53.8	24.3	10.0	0.0	0.3	5.9	0.2
Negro	58.1	29.7	3.0	0.0	0.8	0.4	0.2

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Weste
Pearl River							
Total	51.9	22.5	5.5	0.3	0.8	10.6	2.3
White	49.3	22.0	5.8	0.3	1.0	12.3	2.7
Negro	63.6	24.4	4.1	0.0	0.1	2.3	0.5
Perry							
Total	68.7	19.4	4.5	0.0	0.0	3.9	0.6
White	64.3	21.7	5.2	0.0	0.0	4.7	0.8
Negro	81.8	12.5	2.3	0.0	0.0	1.5	0.0
Pike							
Total	66.7	18.8	5.8	0.2	0.7	4.0	0.7
White	61.9	19.1	8.0	0.4	0.8	5.3	1.1
Negro	73.3	18.5	2.8	0.1	0.5	2.2	0.2
Pontotoc							
Total	61.8	25.4	6.2	0.4	1.2	2.5	0.4
White	60.9	24.7	6.5	0.5	1.3	3.0	0.4
Negro	66.8	26.7	5.0	0.0	0.8	0.1	0.0
Prentiss							
Total	58.5	26.4	5.9	0.0	2.1	2.6	0.3
White	58.3	25.4	6.2	0.0	2.4	2.8	0.3
Negro	60.5	34.6	3.3	0.0	0.5	0.9	0.0
Quitman							
Total	52.0	30.8	9.2	0.0	1.3	2.8	0.2
White	48.6	27.8	13.8	0.0	1.1	4.9	0.4
Negro	54.3	33.3	5.6	0.0	1.5	1.2	0.0
Rankin							
Total	49.5	19.3	15.2	0.0	0.7	3.1	0.7
White	49.1	18.4	18.8	0.0	0.4	4.3	0.8
Negro	50.6	21.7	5.6	0.0	1.3	0.3	0.3
Scott							
Total	61.7	24.9	7.6	0.0	0.7	1.4	0.4
White	58.2	25.1	9.9	0.0	0.8	1.9	0.4
Negro	68.9	24.2	2.8	0.0	0.5	0.6	1.3
Sharkey							
Total	54.2	30.5	10.2	0.0	0.8	0.8	0.3
White	51.8	25.1	18.3	0.0	0.0	2.3	0.4
Negro	55.7	33.6	5.7	0.0	1.3	0.0	0.
Simpson							
Total	58.0	21.9	9.2	0.1	0.4	2.7	0.
White	58.1	19.2	9.9	0.1	0.5	3.8	0.
Negro	57.4	28.3	7.8	0.1	0.0	0.0	0.
Smith							
Total	61.1	18.0	5.3	0.0	0.9	1.4	0.
White	63.4	16.9	5.1	0.0	1.0	1.8	0.
Negro	52.5	22.5	6.1	0.0	0.3	0.0	0.
Stone							
Total	56.2	18.7	13.9	0.2	1.0	5.6	0.
White	58.7	13.5	16.7	0.3	0.9	5.6	0.
Negro	47.4	37.5	4.0	0.0	1.2	5.5	0.
Sunflower							
Total	51.4	30.4	9.9	0.1	0.6	1.8	0.
White	51.6	23.0	13.8	0.1	0.4	3.7	0.
Negro	50.8	35.3	7.5	0.1	0.8	0.6	0.
Tallahatchie							
Total	57.5	29.9	7.1	0.0	0.8	1.6	0.
White	57.6	25.2	11.5	0.0	0.2	3.3	0.
Negro	57.1	33.4	4.0	0.0	1.2	0.3	0.

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Western
Tate							
Total	50.7	30.1	10.3	0.0	0.8	6.0	0.1
White	47.4	22.0	15.9	0.1	1.2	11.0	0.3
Negro	54.6	39.6	3.7	0.0	0.2	0.2	0.0
Tippah							
Total	58.3	25.1	4.9	0.5	0.9	4.7	0.4
White	60.5	22.7	4.8	0.6	1.0	5.3	0.5
Negro	47.3	38.0	5.6	0.0	0.0	1.4	0.0
Tishomingo							
Total	63.2	18.3	4.4	0.1	3.9	4.0	0.3
White	63.0	18.4	4.6	0.1	3.7	4.0	0.3
Negro	67.5	15.3	1.1	0.0	8.1	3.7	0.0
Tunica							
Total	58.0	30.1	5.8	0.0	0.5	1.7	0.5
White	53.2	24.8	10.6	0.0	0.0	5.6	1.6
Negro	59.9	32.2	3.8	0.1	0.7	0.1	0.0
Union							
Total	55.7	29.5	5.9	0.5	1.6	3.8	0.2
White	55.9	28.6	6.3	0.4	1.3	4.4	0.3
Negro	54.1	34.7	3.9	0.5	3.0	0.0	0.0
Walthall							
Total	66.5	18.8	5.5	0.0	0.2	3.5	0.0
White	66.0	15.6	7.2	0.0	0.2	4.6	0.0
Negro	67.3	23.7	2.9	0.1	0.2	1.9	0.0
Warren							
Total	53.3	25.7	8.0	0.5	1.3	5.9	0.5
White	48.7	22.8	10.5	0.7	1.4	9.6	0.8
Negro	60.2	30.0	4.3	0.1	1.1	0.5	0.2
Washington							
Total	51.5	31.9	6.9	0.3	1.6	3.3	0.5
White	48.9	27.8	9.6	0.5	2.3	6.5	0.8
Negro	53.7	35.4	4.5	0.1	0.9	0.6	0.2
Wayne							
Total	63.7	18.8	4.4	0.0	0.3	3.4	0.3
White	60.5	20.9	4.6	0.0	0.3	4.2	0.4
Negro	70.6	14.3	3.9	0.0	0.3	1.7	0.0
Webster							
Total	63.3	22.5	8.5	0.0	0.5	2.8	0.0
White	62.4	21.3	10.4	0.0	0.5	3.5	0.0
Negro	67.0	26.8	1.9	0.0	0.7	0.0	0.0
Wilkinson							
Total	71.0	19.2	2.8	0.0	0.3	3.2	0.0
White	67.5	14.5	5.4	0.0	0.0	9.2	0.0
Negro	72.8	21.5	1.5	0.0	0.4	0.2	0.0
Winston							
Total	62.0	22.5	6.6	0.1	1.8	1.7	0.6
White	61.1	20.6	9.2	0.1	1.6	2.4	0.9
Negro	63.9	24.6	2.7	0.0	2.3	0.6	0.1
Yalobusha							
Total	60.5	23.0	6.9	0.2	2.0	2.3	0.3
White	55.0	22.5	9.6	0.4	2.5	3.7	0.4
Negro	69.0	23.9	2.5	0.0	1.2	0.1	0.0

Table 7.-(continued)

1970 Area of Residence and Race	Percentage Distribution by Area of Residence in 1965						
	Same State			Different State			
	Same House	Different House Same Cty	Different County	Northeast	North Central	Southern	Weste
Yazoo							
Total	60.7	26.1	5.1	0.1	1.4	1.9	0.7
White	61.4	19.9	8.2	0.2	1.0	3.5	1.4
Negro	60.0	31.8	2.3	0.0	1.8	0.4	0.0

Source: U. S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tab 101; 1970 Census of Population, U.S. Summary, Report PC(1)-C1, Tables 87 and 131, State Summaries: Alabama, Report PC(1)-C2, Kentucky, Report PC(1)-C19, Mississippi, Tennessee, Report PC(1)-C44 (Washington, D.C.: USGPO), Table 148.

TABLE 8.-PERCENTAGE DISTRIBUTION OF THE NATIVE-BORN POPULATION, BY REGION OF BIRTH AND BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.(1)

Area and Race	Born In(2)					Area and Race	Born In(2)				
	State In Which Now Living	North East	North Central	Other Southern State	West		State In Which Now Living	North East	North Central	Other Southern State	We
United States						Alcorn					
Total	68.0	5.5	8.0	9.9	2.8	Total	75.3	0.5	2.2	16.2	0.
White	68.1	6.1	8.8	8.5	3.1	White	74.2	0.5	2.3	17.2	0.
Negro	66.9	1.3	1.8	21.1	0.4	Negro	84.7	0.1	1.6	8.3	0.
South						Amite					
Total	69.1	4.6	5.3	14.0	1.6	Total	86.7	0.1	0.8	8.2	0.
White	66.5	5.5	6.4	14.7	1.9	White	81.6	0.2	1.0	11.7	0.
Negro	80.2	8.7	0.7	11.5	0.3	Negro	91.8	0.1	0.6	4.8	0.
E.S.C.(3)						Attala					
Total	78.9	1.3	3.9	10.8	0.8	Total	91.4	0.4	1.2	3.3	0.
White	77.1	1.5	4.6	11.7	0.9	White	89.1	0.5	0.9	5.2	0.
Negro	86.1	0.3	1.0	7.3	0.1	Negro	94.6	0.1	1.7	0.5	0.
Mississippi						Benton					
Total	81.3	0.9	2.3	10.6	0.9	Total	85.4	0.3	1.2	9.8	0.
White	75.1	1.4	3.2	14.8	1.3	White	82.5	0.4	1.7	12.0	0.
Negro	91.8	0.1	0.8	3.4	0.1	Negro	89.5	0.0	0.5	6.9	0.
Adams						Bolivar					
Total	81.6	0.5	1.4	12.1	0.4	Total	87.8	0.3	1.2	7.7	0.
White	71.7	0.8	2.1	20.0	0.6	White	79.9	0.8	1.9	13.8	0.
Negro	92.3	0.1	0.5	3.6	0.3	Negro	92.8	0.1	0.7	3.8	0.

(1) Categories covering children of native parents born abroad, those born in Puerto Rico and outlying areas, and those not reporting are omitted from the table.

(2) For instance, 75.1% of the white residents of Mississippi were born in Mississippi, 14.9% were born in another state in the South, 1.3% were born in the West, and 4.6% in the North, either the Northeast or North Central.

(3) East South Central.

Table 8.-(continued)

Area and Race	Born In(2) State In Which Now Living	North East	North Central	Other Southern State	West
Calhoun					
Total	91.2	0.0	0.5	3.9	0.2
White	90.6	0.1	0.5	5.0	0.3
Negro	92.8	0.0	0.5	0.9	0.0
Carroll					
Total	95.3	0.0	0.6	1.4	0.1
White	95.0	0.0	0.3	1.8	0.2
Negro	95.6	0.0	1.0	1.0	0.0
Chickasaw					
Total	89.5	0.2	1.5	5.3	0.4
White	86.8	0.3	1.7	7.7	0.6
Negro	94.3	0.1	1.2	1.0	0.0
Choctaw					
Total	92.2	0.2	0.5	3.3	0.9
White	90.3	0.2	0.6	4.6	1.2
Negro	96.9	0.2	0.3	0.2	0.0
Claiborne					
Total	89.3	0.3	0.5	4.1	0.4
White	78.5	0.9	1.8	11.0	1.7
Negro	93.0	0.1	0.0	1.7	0.0
Clarke					
Total	83.4	0.2	0.9	11.5	0.4
White	79.5	0.2	1.0	14.9	0.6
Negro	90.7	0.1	0.8	5.4	0.0
Clay					
Total	87.1	0.2	2.2	8.1	0.4
White	80.3	0.4	2.9	13.0	0.7
Negro	93.9	0.1	1.5	3.0	0.1
Coahoma					
Total	87.3	0.2	1.8	7.3	0.4
White	76.7	0.6	3.0	15.2	0.9
Negro	93.2	0.1	1.2	3.1	0.0
Copiah					
Total	91.0	0.2	1.3	4.0	0.5
White	87.3	0.4	1.8	6.7	1.0
Negro	94.8	0.0	0.8	1.2	0.1
Covington					
Total	91.5	0.2	0.9	3.4	0.3
White	90.0	0.2	0.9	4.5	0.4
Negro	94.6	0.3	1.0	1.0	0.1
DeSoto					
Total	61.4	0.5	2.3	30.4	0.7
White	46.5	0.7	3.3	43.7	1.1
Negro	89.0	0.0	0.3	5.7	0.1
Forrest					
Total	77.0	1.0	2.8	13.4	0.9
White	72.7	1.3	3.6	16.7	1.1
Negro	90.7	0.1	0.6	3.2	0.1
Franklin					
Total	92.9	0.1	0.7	3.5	0.1
White	90.8	0.2	0.9	5.1	0.2
Negro	96.2	0.0	0.3	0.8	0.0
George					
Total	83.4	0.4	0.5	11.7	0.5
White	82.6	0.4	0.6	12.3	0.6
Negro	89.0	0.0	0.0	7.4	0.0
Greene					
Total	83.9	0.1	0.9	10.7	0.3
White	82.9	0.1	0.8	11.2	0.4
Negro	88.2	0.0	1.5	8.1	0.0
Grenada					
Total	87.8	0.2	1.2	5.0	0.5
White	83.4	0.4	1.8	8.0	0.8
Negro	93.4	0.0	0.6	1.2	0.1
Hancock					
Total	63.8	1.9	2.8	25.2	1.5
White	62.1	2.2	3.1	25.9	1.7
Negro	73.3	0.4	1.0	21.0	0.4
Harrison					
Total	52.3	5.6	8.2	23.3	3.7
White	47.3	6.6	9.6	25.6	4.2
Negro	77.1	0.9	1.5	12.2	0.8
Hinds					
Total	80.2	0.8	2.7	11.2	0.8
White	72.6	1.2	3.9	17.4	1.2
Negro	92.1	0.1	0.9	1.6	0.2
Holmes					
Total	91.0	0.2	1.0	2.1	0.2
White	88.7	0.5	1.6	4.9	0.6
Negro	92.1	0.1	0.7	0.8	0.0
Humphreys					
Total	89.8	0.2	1.4	2.8	0.1
White	84.9	0.5	2.6	6.9	0.2
Negro	92.6	0.0	0.7	0.6	0.1
Issaquena					
Total	81.5	0.2	5.0	11.4	0.4
White	62.1	0.4	11.5	23.7	1.2
Negro	93.4	0.0	1.0	4.0	0.0
Itawamba					
Total	81.9	0.0	3.3	11.3	0.3
White	81.5	0.0	3.5	11.6	0.3
Negro	87.5	0.0	0.4	6.1	0.3
Jackson					
Total	62.8	3.1	4.7	21.8	2.6
White	60.7	3.6	5.6	21.9	3.0
Negro	73.6	0.5	0.4	20.7	0.5
Jasper					
Total	91.1	0.1	0.6	3.4	0.2
White	89.4	0.2	0.7	5.6	0.4
Negro	93.2	0.0	0.4	0.9	0.0
Jefferson					
Total	92.6	0.1	0.4	3.1	0.1
White	86.0	0.4	1.2	8.1	0.4
Negro	94.7	0.0	0.1	1.4	0.0
Jefferson Davis					
Total	91.4	0.0	0.6	3.8	0.1
White	88.5	0.1	0.4	5.2	0.2
Negro	94.4	0.0	0.7	2.4	0.0
Jones					
Total	84.5	0.4	1.2	8.5	0.5
White	82.8	0.5	1.4	10.1	0.6
Negro	89.8	0.2	0.8	3.6	0.1

Table 8.-(continued)

Area and Race	Born In(2)				
	State In Which Now Living	North East	North Central	Other Southern State	West
Kemper					
Total	91.6	0.2	0.7	4.3	0.1
White	89.3	0.3	0.5	6.9	0.2
Negro	93.1	0.0	0.9	2.3	0.0
Lafayette					
Total	76.0	1.3	3.3	13.2	1.7
White	69.1	1.7	4.4	17.7	2.3
Negro	93.8	0.3	0.5	1.6	0.0
Lamar					
Total	84.0	0.5	1.3	9.8	0.9
White	82.9	0.5	1.6	10.6	1.0
Negro	91.5	0.2	0.0	4.5	0.0
Lauderdale					
Total	75.2	1.6	3.0	13.5	1.5
White	69.8	2.1	4.0	16.9	2.1
Negro	87.5	0.2	0.7	5.9	0.2
Lawrence					
Total	84.9	0.4	1.0	8.2	1.1
White	81.3	0.4	1.1	10.9	1.2
Negro	92.6	0.2	0.7	2.5	0.9
Leake					
Total	93.2	0.0	0.6	2.8	0.1
White	91.5	0.0	0.5	4.2	0.1
Negro	95.8	0.0	0.8	0.6	0.0
Lee					
Total	83.0	0.5	2.6	9.8	0.6
White	80.6	0.6	2.9	11.9	0.8
Negro	92.5	0.1	1.6	1.6	0.1
Leflore					
Total	89.2	0.3	1.2	6.4	0.2
White	80.8	0.8	2.0	12.5	0.5
Negro	95.2	0.0	0.6	2.0	0.1
Lincoln					
Total	88.1	0.4	1.1	6.8	0.5
White	86.8	0.6	1.1	8.1	0.7
Negro	91.1	0.0	0.7	3.9	0.0
Lowndes					
Total	63.7	1.8	4.0	23.3	1.6
White	51.9	2.5	5.5	31.9	2.2
Negro	88.0	0.3	0.9	5.6	0.3
Madison					
Total	89.0	0.3	1.5	4.4	0.3
White	82.0	0.7	2.6	9.9	0.7
Negro	93.2	0.1	0.9	1.0	0.1
Marion					
Total	87.4	0.3	0.8	5.7	0.2
White	85.3	0.4	1.1	7.0	0.3
Negro	92.4	0.0	0.2	2.7	0.2
Marshall					
Total	85.2	0.3	1.3	9.7	0.2
White	73.3	0.7	2.2	19.3	0.3
Negro	92.5	0.0	0.8	3.9	0.1
Monroe					
Total	83.8	0.4	2.2	11.0	0.5
White	79.3	0.5	2.6	14.7	0.8
Negro	94.0	0.1	1.4	2.6	0.1
Montgomery					
Total	92.3	0.1	1.2	2.9	0
White	89.3	0.2	1.8	5.0	0
Negro	95.9	0.0	0.6	0.4	0
Neshoba					
Total	91.0	0.4	1.2	3.4	0
White	90.0	0.5	1.0	4.4	1
Negro	94.1	0.5	1.6	0.5	0
Newton					
Total	89.4	0.4	1.3	4.6	0
White	87.8	0.6	1.7	5.8	0
Negro	93.2	0.0	0.3	1.8	0
Noxubee					
Total	87.0	0.5	3.3	6.7	0
White	75.6	1.4	8.5	12.7	0
Negro	92.8	0.0	0.6	3.7	0
Oktibbeha					
Total	79.4	0.9	2.9	10.7	1
White	71.2	1.4	4.2	16.1	1
Negro	94.8	0.1	0.5	0.9	0
Panola					
Total	87.7	0.2	1.2	6.8	0
White	81.4	0.4	1.4	12.5	0
Negro	94.1	0.0	1.0	1.5	0
Pearl River					
Total	71.9	1.1	2.4	17.8	2
White	69.7	1.3	2.8	19.1	2
Negro	81.9	0.0	0.2	12.2	0
Perry					
Total	88.1	0.6	0.9	7.1	0
White	86.8	0.2	1.1	8.1	0
Negro	91.8	1.8	0.3	4.4	0
Pike					
Total	86.6	0.4	1.1	8.7	0
White	81.5	0.6	1.8	12.2	0
Negro	93.1	0.0	0.2	4.1	0
Pontotoc					
Total	91.3	0.3	1.3	5.2	0
White	90.7	0.3	1.3	6.0	0
Negro	94.2	0.0	1.4	1.6	0
Prentiss					
Total	87.2	0.2	2.1	7.6	0
White	86.1	0.2	2.3	8.1	0
Negro	95.7	0.0	0.8	3.2	0
Quitman					
Total	92.0	0.0	1.2	4.4	0
White	88.0	0.0	1.4	8.2	0
Negro	95.0	0.0	1.0	1.6	0
Rankin					
Total	82.1	0.4	1.3	6.6	0
White	81.0	0.5	1.6	8.4	0
Negro	84.9	0.1	0.5	1.8	0
Scott					
Total	90.9	0.1	0.8	3.9	0
White	89.7	0.1	0.9	5.5	0
Negro	93.5	0.1	0.6	0.9	0

Table 8.-(continued)

Area and Race	Born In(2) State In Which Now Living	North East	North Central	Other Southern State	West
Sharkey					
Total	89.6	0.3	1.8	6.5	0.2
White	83.1	0.5	2.6	11.7	0.4
Negro	93.2	0.2	1.4	3.7	0.1
Simpson					
Total	92.5	0.2	0.6	3.1	0.3
White	91.6	0.2	0.6	3.8	0.4
Negro	94.6	0.3	0.5	1.5	0.1
Smith					
Total	92.9	0.1	0.1	1.5	0.1
White	93.0	0.1	0.1	1.9	0.1
Negro	92.2	0.0	0.0	0.2	0.0
Stone					
Total	84.1	0.5	1.5	9.7	1.0
White	83.0	0.7	1.7	9.7	1.2
Negro	87.7	0.0	0.8	9.5	0.0
Sunflower					
Total	89.7	0.2	1.2	5.3	0.2
White	82.8	0.5	1.9	11.2	0.3
Negro	93.7	0.0	0.8	1.9	0.1
Tallahatchie					
Total	92.5	0.1	0.9	3.7	0.2
White	89.1	0.1	0.9	7.3	0.4
Negro	94.8	0.0	1.0	1.4	0.0
Tate					
Total	87.3	0.1	1.2	9.2	0.3
White	78.7	0.1	2.1	16.3	0.5
Negro	96.8	0.0	0.3	1.3	0.0
Tippah					
Total	89.2	0.3	1.0	6.5	0.6
White	88.0	0.4	1.2	7.4	0.7
Negro	94.9	0.0	0.0	2.3	0.2
Tishomingo					
Total	79.6	0.1	2.5	14.1	0.2
White	79.5	0.1	2.5	14.1	0.3
Negro	81.0	0.0	2.2	13.9	0.0
Tunica					
Total	83.9	0.1	2.3	9.1	0.4
White	67.0	0.3	5.7	21.2	1.1
Negro	90.2	0.1	1.1	4.6	0.2
Union					
Total	86.0	0.2	1.8	8.5	0.4
White	85.1	0.2	1.6	9.7	0.4
Negro	91.1	0.2	2.6	2.3	0.0
Walthall					
Total	89.9	0.2	0.5	5.3	0.4
White	87.2	0.2	0.7	8.1	0.6
Negro	93.7	0.1	0.2	1.3	0.1
Warren					
Total	79.7	0.9	2.4	13.0	0.9
White	70.5	1.5	3.5	19.3	1.4
Negro	92.9	0.1	0.7	4.1	0.1
Washington					
Total	83.4	0.6	2.3	9.9	0.5
White	72.4	1.1	4.2	17.9	1.1
Negro	92.4	0.1	0.8	3.5	0.0
Wayne					
Total	84.7	0.3	0.7	8.3	0.4
White	83.8	0.4	0.9	8.6	0.5
Negro	86.5	0.2	0.2	7.9	0.1
Webster					
Total	91.5	0.1	0.8	5.0	0.4
White	90.7	0.1	0.8	6.3	0.5
Negro	94.4	0.0	0.9	0.7	0.0
Wilkinson					
Total	89.1	0.3	0.5	6.7	0.2
White	83.2	0.6	1.5	12.4	0.4
Negro	91.9	0.1	0.1	3.9	0.0
Winston					
Total	92.1	0.2	1.2	3.0	0.2
White	90.5	0.3	1.5	4.6	0.3
Negro	94.2	0.1	0.7	0.6	0.1
Yalobusha					
Total	88.1	0.5	2.0	5.4	0.1
White	82.9	0.9	2.6	8.5	0.2
Negro	95.7	0.0	1.2	0.7	0.0
Yazoo					
Total	89.5	0.2	1.5	4.9	0.4
White	83.6	0.4	2.4	9.4	0.8
Negro	94.6	0.0	0.6	1.1	0.1

Source: U. S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tab 27; 1970 Census of Population, Report PC(1)-C1, Tables 87 and 131, State Summaries: Alabama, Report PC(1)-C2, Kentucky, Report PC(1)-C19, Mississippi Report PC(1)-C26, Tennessee, Report C(1)-C44 (Washington, D.C.: USGPO), Tables 50.

TABLE 9.-AGE DISTRIBUTION AND MEDIAN AGE OF THE POPULATION, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of the Population in Stated Ages							Med Ag
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
United States								
Total	30.5	3.8	3.6	31.7	16.3	4.2	9.9	28.
White	29.5	3.7	3.6	21.7	16.8	4.4	10.3	28.
Negro	37.7	4.4	4.0	30.5	13.2	3.3	6.9	22.
South								
Total	30.9	3.9	3.8	31.9	15.7	4.2	9.6	27.
White	29.1	3.7	3.6	32.8	16.3	4.4	10.1	28.
Negro	38.3	4.7	4.2	28.2	13.1	3.5	7.9	21.
E. S. C.(1)								
Total	31.3	4.0	3.9	30.9	15.7	4.4	9.9	27.
White	29.3	3.7	3.7	32.1	16.3	4.5	10.0	28.
Negro	39.1	4.9	4.3	25.1	13.0	4.0	9.5	21.
Mississippi								
Total	33.8	4.2	4.0	28.9	14.6	4.4	10.0	25.
White	29.1	3.7	3.8	32.3	16.2	4.7	10.2	28.
Negro	42.0	5.1	4.4	22.9	12.0	4.0	9.7	19.
Adams								
Total	35.2	4.6	3.3	28.4	15.3	4.2	9.1	26.
White	31.2	4.2	2.9	32.5	17.4	4.2	7.7	29.
Negro	39.6	5.1	3.8	23.9	13.0	4.1	10.5	21.
Alcorn								
Total	28.9	3.6	3.2	30.7	16.4	5.4	11.8	31.
White	27.8	3.5	3.1	31.5	16.8	5.4	11.8	32.
Negro	36.7	4.8	4.0	24.1	13.4	5.1	11.9	24.
Amite								
Total	35.4	4.7	3.3	23.1	15.6	5.5	12.5	27.
White	26.3	3.8	2.6	26.6	18.9	6.7	15.1	36
Negro	44.4	5.7	4.0	19.6	12.2	4.3	9.8	18
Attala								
Total	31.9	4.3	3.0	24.9	16.2	5.6	14.0	30
White	25.6	3.6	2.6	27.3	18.7	6.3	15.9	36
Negro	41.1	5.4	3.8	21.4	12.6	4.6	11.2	19
Benton								
Total	36.4	4.3	3.1	24.7	14.8	5.2	11.5	26
White	27.0	3.8	2.7	27.7	18.2	6.4	14.1	34
Negro	49.4	5.0	3.8	20.4	10.0	3.5	7.9	16
Bolivar								
Total	38.7	4.7	4.7	25.1	12.7	4.0	10.1	21
White	27.1	3.7	5.0	34.3	16.2	4.5	9.2	30
Negro	46.0	5.3	4.5	19.3	10.6	3.7	10.7	17
Calhoun								
Total	30.7	4.2	3.0	26.7	16.8	5.8	12.9	31
White	25.8	3.6	2.6	27.4	18.6	6.7	15.2	36
Negro	44.3	5.9	4.1	24.6	11.4	3.5	6.2	17
Carroll								
Total	34.4	4.7	3.8	23.8	16.1	5.2	11.9	27
White	25.6	3.9	2.5	27.2	19.9	6.9	14.0	36
Negro	42.9	5.5	4.9	20.5	12.5	3.6	10.0	18

(1) East South Central.

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Median Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Chickasaw								
Total	33.4	4.3	3.0	27.6	14.9	4.7	12.2	28.5
White	28.7	3.9	2.6	29.6	17.0	5.2	13.0	32.5
Negro	40.8	5.2	3.5	24.0	11.1	3.7	10.7	19.7
Choctaw								
Total	31.7	4.2	2.8	25.8	15.4	5.7	14.3	30.9
White	27.0	3.8	2.5	27.2	17.4	6.0	16.2	35.3
Negro	43.8	5.4	3.5	22.4	10.3	5.1	9.6	18.5
Claiborne								
Total	33.1	4.5	6.6	26.0	14.3	4.9	10.7	25.6
White	25.4	4.2	2.6	28.0	19.3	6.5	14.0	35.9
Negro	35.7	4.6	7.9	25.2	12.7	4.3	9.6	21.8
Clarke								
Total	31.5	4.2	3.5	26.6	15.8	5.2	13.2	30.2
White	27.1	3.7	3.0	29.4	17.4	5.7	13.7	33.8
Negro	39.2	5.1	4.3	21.5	12.9	4.4	12.6	21.5
Clay								
Total	34.2	4.5	4.4	27.4	15.0	4.3	10.3	26.3
White	28.4	3.6	2.6	30.8	18.2	5.0	11.4	32.5
Negro	40.2	5.5	6.3	23.7	11.7	3.5	9.2	19.4
Coahoma								
Total	39.1	4.7	3.8	23.0	13.7	4.6	11.0	22.6
White	30.2	3.8	2.7	30.3	17.3	4.8	10.8	30.9
Negro	43.9	5.2	4.4	19.0	11.8	4.5	11.2	18.4
Copiah								
Total	33.4	4.5	4.7	24.6	14.9	5.0	12.9	27.5
White	25.8	3.6	4.9	27.1	17.2	5.8	15.5	34.5
Negro	40.9	5.4	4.5	22.1	12.5	4.2	10.3	19.6
Covington								
Total	34.4	4.5	3.2	27.3	14.7	4.8	11.1	27.2
White	29.9	4.0	2.7	29.0	16.7	5.5	12.1	31.5
Negro	43.7	5.6	4.1	23.7	10.5	3.5	9.0	18.3
DeSoto								
Total	39.3	4.1	3.2	31.5	11.9	3.2	6.8	22.7
White	35.7	3.5	2.7	36.9	12.4	3.0	5.9	25.5
Negro	46.1	5.3	4.2	21.4	11.0	3.5	8.5	17.5
Forrest								
Total	29.4	3.7	5.5	33.2	14.7	4.2	9.4	28.6
White	26.5	3.4	5.8	35.9	15.1	4.2	9.2	30.0
Negro	38.6	4.7	4.3	24.7	13.6	4.3	9.9	22.4
Franklin								
Total	30.6	4.8	3.7	23.9	16.8	5.8	14.3	31.3
White	25.4	4.4	3.0	26.3	19.4	6.5	15.0	36.3
Negro	38.9	5.6	4.8	20.1	12.7	4.8	13.1	20.9
George								
Total	35.5	4.0	3.1	30.2	14.2	4.4	8.5	26.1
White	34.3	3.9	3.0	30.9	14.9	4.4	8.7	27.2
Negro	44.8	5.0	4.4	24.6	9.3	4.4	7.6	18.1
Greene								
Total	34.2	4.5	3.4	27.7	14.8	4.4	11.0	27.1
White	32.3	4.1	3.1	29.6	15.3	4.6	11.0	28.9
Negro	41.2	5.9	4.5	20.9	12.9	3.8	10.8	19.3
Grenada								
Total	34.0	4.1	3.3	27.4	15.6	4.6	11.1	27.9
White	27.5	3.6	2.9	30.9	18.5	5.2	11.4	33.0
Negro	42.3	4.8	3.8	22.9	11.7	3.7	10.8	19.5

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Media Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Hancock								
Total	33.6	4.1	3.2	28.3	16.0	4.7	10.1	28.0
White	32.5	3.9	3.1	29.2	16.5	4.8	10.0	29.0
Negro	40.5	5.2	4.0	23.2	12.7	4.0	10.3	20.3
Harrison								
Total	32.3	3.6	5.6	35.4	13.1	3.2	6.8	26.0
White	30.4	3.5	5.9	36.7	13.5	3.2	6.9	27.0
Negro	41.6	4.2	4.4	28.8	11.8	3.0	6.3	19.9
Hinds								
Total	33.2	4.0	4.3	32.3	14.6	3.8	7.8	26.6
White	28.4	3.7	3.8	35.1	16.7	4.1	8.2	30.0
Negro	40.7	4.5	5.1	27.8	11.3	3.4	7.2	19.9
Holmes								
Total	36.3	5.0	5.1	21.3	13.9	5.1	13.3	24.2
White	23.5	4.0	7.4	25.8	18.0	6.1	15.1	34.5
Negro	42.3	5.5	4.0	19.2	11.9	4.7	12.4	19.1
Humphreys								
Total	39.9	4.8	3.8	22.7	13.6	4.8	10.5	21.6
White	29.2	3.9	3.1	29.2	17.5	6.0	11.2	31.8
Negro	45.7	5.4	4.2	19.1	11.4	4.1	10.1	17.6
Issaquena								
Total	39.4	5.0	3.2	22.3	14.4	4.7	11.0	22.7
White	29.3	4.7	3.0	28.1	19.9	5.2	9.9	31.6
Negro	45.6	5.2	3.4	18.7	11.0	4.4	11.7	17.7
Itawamba								
Total	29.0	3.7	3.7	29.9	16.9	5.1	11.8	31.4
White	28.8	3.7	3.6	30.0	17.0	5.0	11.9	31.6
Negro	32.2	3.5	5.4	27.1	14.9	6.2	10.7	28.3
Jackson								
Total	37.7	3.8	3.1	34.5	13.3	2.7	4.9	23.9
White	36.4	3.7	3.0	35.5	13.8	2.8	4.9	24.9
Negro	44.4	4.5	3.6	29.4	10.9	2.6	4.6	18.6
Jasper								
Total	33.9	4.5	3.6	26.3	15.3	4.6	11.9	27.6
White	27.1	3.8	2.8	29.7	17.7	5.4	13.5	33.7
Negro	41.7	5.2	4.6	22.3	12.5	3.8	10.0	19.3
Jefferson								
Total	37.8	5.0	4.3	21.8	13.3	4.9	13.0	23.4
White	24.6	4.3	2.7	25.1	18.2	7.9	17.1	38.3
Negro	42.1	5.2	4.8	20.8	11.7	3.9	11.6	19.1
Jefferson Davis								
Total	34.5	4.8	4.3	25.2	15.3	5.5	10.5	26.4
White	29.0	4.0	3.0	28.6	17.5	6.3	11.7	32.3
Negro	39.8	5.6	5.6	21.8	13.1	4.7	9.3	19.6
Jones								
Total	30.8	4.1	3.8	29.1	16.4	5.1	10.7	29.7
White	28.1	3.8	3.7	30.8	17.4	5.2	11.0	31.7
Negro	38.8	5.1	4.4	23.9	13.3	4.6	9.9	21.8
Kemper								
Total	33.2	4.7	4.8	23.3	14.8	5.5	13.8	27.8
White	22.0	3.5	5.7	25.0	19.6	6.7	17.4	38.7
Negro	42.1	5.6	4.0	21.7	11.1	4.4	11.1	19.1
Lafayette								
Total	27.2	3.2	9.1	36.6	11.6	3.6	8.8	27.2
White	21.2	2.3	10.9	41.5	11.8	3.5	8.9	29.4
Negro	43.2	5.5	4.3	22.9	11.4	3.9	8.9	18.6

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Median Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Lamar								
Total	33.8	4.4	3.2	29.2	15.2	4.3	9.9	27.3
White	32.7	4.4	3.1	30.1	15.6	4.5	9.7	28.2
Negro	41.1	5.0	4.3	23.0	12.5	3.4	10.8	19.8
Lauderdale								
Total	29.6	3.8	3.6	30.9	16.0	4.8	11.3	30.5
White	25.9	3.3	3.4	33.6	17.1	5.0	11.8	33.0
Negro	38.0	4.9	4.2	24.8	13.5	4.5	10.2	22.9
Lawrence								
Total	34.3	4.6	3.0	27.5	14.5	5.1	11.0	27.4
White	31.4	3.8	2.3	30.7	15.5	5.4	11.0	30.2
Negro	40.3	6.1	4.7	20.6	12.6	4.6	11.1	19.5
Leake								
Total	30.8	4.5	3.5	25.9	16.1	5.9	13.4	30.8
White	25.7	3.5	2.6	27.6	18.3	6.9	15.4	36.5
Negro	38.5	6.1	4.7	22.5	13.1	4.5	10.6	20.7
Lee								
Total	31.7	3.8	2.9	32.0	15.4	4.5	9.7	29.1
White	29.8	3.5	2.8	33.3	16.3	4.6	9.8	30.5
Negro	38.8	5.0	3.5	27.2	12.2	4.0	9.3	22.5
Leflore								
Total	36.6	4.5	3.8	25.5	14.5	4.5	10.5	24.9
White	28.7	3.8	2.6	30.7	17.7	5.4	11.1	32.1
Negro	42.4	5.0	4.7	21.8	12.2	3.9	10.0	19.1
Lincoln								
Total	32.1	4.2	3.4	27.9	15.8	5.2	11.4	29.2
White	28.2	3.6	3.0	30.0	17.3	5.8	12.0	32.6
Negro	40.9	5.4	4.2	23.3	12.2	4.0	10.0	19.7
Lowndes								
Total	33.3	3.7	4.9	33.3	12.9	3.7	8.1	26.0
White	29.3	3.3	5.4	37.5	13.4	3.5	7.5	28.0
Negro	41.6	4.7	3.8	24.6	11.9	3.9	9.4	19.9
Madison								
Total	37.9	4.7	4.2	26.5	12.9	3.8	10.0	23.1
White	30.0	3.8	2.6	31.3	16.4	4.6	11.2	30.8
Negro	42.7	5.1	5.1	23.6	10.9	3.4	9.3	18.9
Marion								
Total	33.5	4.6	3.7	26.6	16.0	4.8	10.8	27.7
White	30.0	4.2	3.3	28.8	17.8	5.0	10.9	30.8
Negro	41.2	5.6	4.5	21.8	12.0	4.2	10.8	19.4
Marshall								
Total	38.9	4.7	4.6	26.3	12.5	3.7	9.4	21.7
White	31.0	3.5	3.3	31.4	16.0	4.5	10.3	29.7
Negro	43.6	5.5	5.4	23.2	10.3	3.1	8.8	18.3
Monroe								
Total	32.9	4.2	3.0	28.3	15.8	4.7	11.1	28.8
White	29.1	3.8	2.6	30.8	17.5	5.1	11.2	31.8
Negro	41.4	5.1	3.8	22.7	12.1	3.9	11.0	19.8
Montgomery								
Total	33.4	4.6	3.3	24.6	15.8	5.3	13.0	28.8
White	26.8	3.8	2.2	27.3	18.1	6.6	15.2	35.8
Negro	41.6	5.7	4.6	21.2	12.9	3.7	10.4	19.2
Neshoba								
Total	31.6	4.2	3.3	27.3	15.9	5.3	12.5	30.0
White	27.3	3.8	2.9	28.0	17.6	6.0	14.3	34.2
Negro	41.8	5.7	4.1	23.0	12.7	3.8	9.0	19.2

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Medi Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Newton								
Total	28.8	4.2	5.4	26.6	16.1	5.3	13.7	31.0
White	24.3	3.8	5.9	28.1	17.6	5.7	14.6	34.2
Negro	38.7	5.1	4.1	22.7	12.7	4.5	12.3	22.3
Noxubee								
Total	38.7	4.9	3.7	23.0	13.8	4.6	11.3	22.9
White	27.8	3.6	2.9	27.5	19.3	5.7	13.2	34.4
Negro	44.3	5.6	4.1	20.7	11.0	4.0	10.3	18.1
Oktibbeha								
Total	30.1	3.5	8.2	36.6	10.7	3.4	7.5	25.6
White	22.4	2.6	10.2	43.7	10.8	3.2	7.1	28.5
Negro	44.7	5.3	4.5	22.8	10.7	3.7	8.3	18.0
Panola								
Total	36.5	4.8	3.5	24.1	14.6	5.0	11.6	25.4
White	28.6	4.0	2.9	28.1	17.7	6.1	12.7	33.0
Negro	44.0	5.6	4.1	20.2	11.7	3.9	10.5	18.2
Pearl River								
Total	33.8	4.4	4.2	30.7	14.5	3.9	8.5	26.2
White	32.1	4.2	4.2	31.8	15.1	4.0	8.6	27.5
Negro	41.2	5.4	4.1	26.0	11.8	3.5	8.1	19.7
Perry								
Total	34.3	4.7	3.5	27.7	14.7	4.8	10.2	26.7
White	31.7	4.7	3.4	29.7	15.6	5.1	9.9	28.7
Negro	41.9	4.8	3.8	22.3	12.3	3.9	11.1	19.8
Pike								
Total	32.1	4.6	4.0	25.3	16.2	5.4	12.5	29.2
White	25.8	3.7	3.8	27.5	18.4	6.0	14.8	35.2
Negro	40.2	5.7	4.2	22.5	13.3	4.6	9.4	19.9
Pontotoc								
Total	29.6	3.9	3.2	26.5	17.4	5.6	13.7	32.5
White	27.4	3.6	2.9	27.2	18.3	6.0	14.6	34.8
Negro	39.9	5.3	4.9	23.4	13.1	3.9	9.5	19.9
Prentiss								
Total	29.6	3.8	3.6	29.2	16.8	5.2	11.9	31.1
White	27.9	3.7	3.5	29.6	17.5	5.4	12.3	32.6
Negro	42.0	4.9	4.0	26.3	11.1	3.4	8.2	19.5
Quitman								
Total	39.9	4.9	3.4	22.6	13.7	4.6	10.9	22.0
White	30.9	4.4	2.9	28.8	17.4	5.1	10.6	30.3
Negro	46.6	5.2	3.8	18.0	11.1	4.1	11.2	17.3
Rankin								
Total	32.3	3.7	2.9	33.4	14.9	4.4	8.5	28.4
White	31.4	3.4	2.6	36.2	14.7	4.1	7.7	28.7
Negro	34.5	4.4	3.7	26.1	15.5	5.3	10.5	27.1
Scott								
Total	33.8	4.6	3.0	27.8	15.0	5.0	10.9	27.8
White	30.7	4.1	2.5	29.8	16.5	5.2	11.2	30.7
Negro	39.8	5.7	3.8	23.9	12.1	4.5	10.2	20.7
Sharkey								
Total	41.1	5.0	3.8	22.2	13.7	4.5	9.8	20.3
White	29.1	4.0	2.9	28.7	18.9	5.5	11.0	32.3
Negro	47.8	5.5	4.3	18.6	11.0	3.9	9.0	16.8
Simpson								
Total	32.8	4.4	3.2	27.3	15.7	5.1	11.6	28.8
White	29.3	4.0	2.7	29.2	17.2	5.7	12.0	32.0
Negro	40.3	5.3	4.3	23.3	12.4	3.7	10.6	20.1

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Median Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Smith								
Total	31.5	4.2	3.4	28.0	16.4	5.2	11.3	29.7
White	27.9	4.1	3.1	28.9	17.7	5.8	12.6	33.0
Negro	44.4	5.0	4.6	24.6	11.6	3.1	6.8	18.3
Stone								
Total	31.4	3.7	6.8	28.2	15.4	4.6	10.0	27.2
White	28.3	3.5	7.4	29.2	16.3	4.9	10.4	29.2
Negro	41.7	4.6	4.6	24.9	12.2	3.4	8.6	19.6
Sunflower								
Total	38.0	4.9	4.2	25.1	13.5	4.4	10.0	22.9
White	26.3	4.2	4.4	30.5	17.7	5.7	11.3	32.4
Negro	44.9	5.2	4.1	21.9	11.0	3.7	9.2	17.9
Tallahatchie								
Total	39.3	4.9	3.3	21.7	14.0	4.9	12.1	23.0
White	28.2	4.3	2.5	26.3	18.7	6.4	13.7	34.3
Negro	46.6	5.2	3.9	18.5	10.8	4.0	11.0	17.3
Tate								
Total	36.5	4.8	5.9	25.4	13.3	4.3	9.9	22.8
White	27.5	3.8	7.2	30.2	15.8	4.8	10.7	29.6
Negro	46.6	5.9	4.4	20.0	10.6	3.7	8.9	17.2
Tippah								
Total	29.9	4.0	3.7	28.0	16.3	5.4	12.7	31.0
White	28.0	3.9	3.7	28.9	16.9	5.5	13.1	32.5
Negro	39.8	5.0	4.0	23.4	12.8	4.6	10.5	21.3
Tishomingo								
Total	28.0	3.8	3.1	29.2	17.1	5.7	13.2	32.9
White	27.7	3.7	3.0	29.5	17.2	5.7	13.2	33.2
Negro	34.7	5.0	5.3	22.8	13.6	5.4	13.3	25.5
Tunica								
Total	41.8	5.0	3.5	20.7	12.9	4.4	11.8	19.8
White	29.1	4.5	2.9	29.3	17.5	5.3	11.4	31.5
Negro	46.5	5.1	3.8	17.4	11.2	4.1	11.9	17.4
Union								
Total	29.2	3.8	3.3	28.4	16.9	5.2	13.1	32.0
White	27.5	3.6	3.3	29.3	17.5	5.4	13.5	33.4
Negro	38.3	5.0	3.8	23.7	13.3	4.6	11.3	23.0
Walthall								
Total	33.5	4.4	3.4	25.9	16.3	5.2	11.3	28.4
White	27.0	3.4	2.6	28.8	18.9	6.1	13.2	34.8
Negro	42.9	5.8	4.6	21.7	12.5	3.9	8.7	18.6
Warren								
Total	34.2	4.1	3.1	28.0	15.3	4.6	10.6	27.6
White	31.7	3.9	2.7	32.1	16.2	4.5	9.0	29.1
Negro	38.0	4.4	3.7	22.0	14.0	4.9	13.0	24.4
Washington								
Total	38.4	4.7	3.4	26.6	13.8	4.1	9.0	23.3
White	32.4	4.1	2.9	32.7	16.4	4.0	7.5	28.1
Negro	43.4	5.2	3.7	21.6	11.7	4.2	10.2	18.7
Wayne								
Total	35.2	4.5	3.7	28.0	14.0	4.4	10.3	25.9
White	31.4	4.4	3.3	30.5	15.2	4.6	10.6	29.0
Negro	43.0	4.6	4.5	22.9	11.6	3.9	9.5	19.1
Webster								
Total	29.7	4.0	3.7	26.0	16.2	5.8	14.5	32.1
White	26.3	3.7	3.5	27.2	17.1	6.3	16.0	35.3
Negro	41.7	5.2	4.4	22.1	12.7	4.4	9.5	19.4

Table 9.-(continued)

Area and Race	Percent of the Population in Stated Ages							Median Age
	Under 16	16-17	18-19	20-44	45-59	60-64	65+	
Wilkinson								
Total	36.2	5.2	3.6	23.5	14.8	5.2	11.5	25.2
White	29.0	3.7	2.4	28.0	17.3	6.4	13.3	33.3
Negro	39.7	6.0	4.2	21.4	13.6	4.6	10.6	20.1
Winston								
Total	32.1	4.8	3.3	26.7	15.9	5.3	12.0	29.2
White	26.3	4.1	2.5	29.5	17.9	6.2	13.4	34.4
Negro	40.8	5.8	4.4	22.4	12.8	4.1	9.8	19.6
Yalobusha								
Total	32.0	4.5	3.4	23.8	16.0	5.7	14.7	30.6
White	25.1	3.5	2.6	25.5	18.8	7.1	17.3	38.4
Negro	42.2	6.1	4.6	21.0	11.9	3.6	10.7	18.8
Yazoo								
Total	36.3	4.8	3.1	24.0	15.4	4.9	11.6	26.1
White	29.6	4.3	2.5	29.5	17.6	5.4	11.2	31.6
Negro	42.2	5.3	3.5	19.2	13.5	4.4	11.9	19.4

Source: U. S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Second Count, Tab 2; 1970 Census of Population, Report PC(1)-B1, Table 52, Reports PC(1)-B2, PC(1)-B19, PC(1)-B26, and PC(1)-B44 (Washington, D.C.: USGPO), Table 19.

TABLE 10.-DEPENDENCY CHARACTERISTICS OF THE POPULATION, BY RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
United States									
Total	.79	.29	83.9(3)	8.1(3)	0.4	82.7	10.0(3)	80.4	5.9
White	.77	.31	88.6(3)	5.5(3)	0.4	86.8	7.3(3)	80.7	5.5
Nonwhite	.94	.16	59.0(3)	21.8(3)	0.4	57.3	15.9(3)	77.0	11.0
Mississippi									
Total	.93	.26	81.8	14.8	0.5	79.3	16.5	81.3	2.7
White	.75	.31	93.6	4.8	0.6	90.2	6.9	80.9	3.5
Nonwhite	1.31	.21	68.4	26.3	0.4	66.3	27.8	81.9	1.2

(1) Dependency Ratio = Population aged 0 to 17 plus population aged 65 and over (dependents) divided by population aged 18 to 64 (contributors) or number of dependents per contributor.

(2) Index of Aging = Population aged 65 and over divided by population aged 0 to 17, or number of aged persons per youthful person.

(3) Own children of head.

Note: Percentages do not add to 100.0 for any of the age groups. Some family and group quarter classes are omitted.

able 10.-(continued)

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
dams									
Total	.95	.23	75.9	20.7	0.4	75.2	21.0	78.5	2.8
White	.76	.22	94.7	3.4	0.5	92.4	5.2	75.8	5.0
Nonwhite	1.23	.24	59.8	35.4	0.3	60.5	34.6	80.7	1.1
corn									
Total	.80	.36	89.6	8.5	0.7	86.7	10.4	83.3	2.9
White	.76	.38	93.3	5.2	0.8	90.3	7.0	83.5	3.2
Nonwhite	1.14	.28	67.5	28.0	0.5	66.2	29.5	82.2	1.1
nite									
Total	1.11	.31	83.9	12.0	0.3	81.9	13.4	86.0	0.2
White	0.83	.50	96.7	2.3	0.4	93.7	4.1	86.6	0.4
Nonwhite	1.49	.20	76.7	17.5	0.2	74.9	18.9	85.1	0.0
tala									
Total	1.01	.39	82.7	13.6	0.6	79.4	16.9	85.4	0.3
White	.82	.55	93.4	4.8	0.8	90.1	7.4	86.7	0.5
Nonwhite	1.37	.24	74.2	20.6	0.4	69.6	25.7	82.8	0.0
nton									
Total	1.09	.28	83.7	13.5	0.2	84.8	11.7	84.6	0.0
White	.82	.46	91.8	4.7	0.4	91.4	4.6	86.8	0.0
Nonwhite	1.65	.15	77.1	20.7	0.1	79.6	17.3	79.3	0.0
livar									
Total	1.15	.23	69.8	24.6	0.4	68.9	25.5	81.4	1.6
White	.67	.30	93.1	4.9	0.5	89.4	7.3	80.6	3.5
Nonwhite	1.61	.21	62.0	31.2	0.3	61.3	32.2	81.9	0.6
lhoun									
Total	.91	.37	87.5	8.8	0.7	84.8	10.4	84.7	0.5
White	.81	.52	94.5	3.7	0.8	90.3	6.5	86.0	0.6
Nonwhite	1.29	.12	75.6	17.5	0.5	75.7	16.8	75.6	0.0
rroll									
Total	1.04	.31	83.9	11.1	0.5	82.3	13.1	81.3	0.0
White	.77	.47	92.3	5.4	0.6	90.2	6.4	82.3	0.0
Nonwhite	1.41	.21	79.3	14.3	0.5	77.6	17.0	79.9	0.0
ickasaw									
Total	.99	.32	84.9	11.5	0.6	82.8	13.2	81.1	1.9
White	.84	.40	92.6	6.3	0.7	89.7	8.1	82.2	2.7
Nonwhite	1.36	.23	76.5	17.2	0.5	74.2	19.6	78.8	0.2
octaw									
Total	1.01	.40	82.5	13.9	0.6	79.5	15.7	85.1	0.0
White	.89	.52	95.0	3.7	1.0	90.0	6.3	84.3	0.0
Nonwhite	1.42	.20	64.2	28.9	0.1	62.5	30.8	88.6	0.0
iborne									
Total	.93	.28	77.9	18.6	0.3	73.8	21.4	84.0	0.0
White	.77	.47	95.7	4.4	1.1	91.1	4.7	81.4	0.0
Nonwhite	1.00	.24	73.6	22.0	0.1	69.5	25.6	85.3	0.0
rke									
Total	.96	.37	83.0	13.9	0.4	81.3	14.4	84.8	0.6
White	.80	.44	94.1	4.5	0.6	90.5	6.6	85.0	0.8
Nonwhite	1.32	.28	70.5	24.5	0.2	69.9	23.9	84.3	0.0
y									
Total	.96	.27	80.1	17.0	0.4	77.3	19.1	81.8	2.3
White	.77	.36	96.2	2.5	0.5	92.4	5.6	79.1	4.1
Nonwhite	1.21	.20	69.3	26.7	0.4	66.5	28.7	85.2	0.0

Table 10.-(continued)

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
Coahoma									
Total	1.21	.25	69.7	25.5	0.3	68.9	26.0	81.7	1.7
White	.81	.32	94.0	4.8	0.3	91.9	6.0	79.7	4.8
Nonwhite	1.51	.23	61.2	32.8	0.2	60.2	33.5	82.7	0.1
Copiah									
Total	1.03	.34	76.1	19.4	0.4	74.7	20.6	84.8	1.0
White	.81	.53	91.5	6.5	0.4	88.3	8.5	84.7	1.4
Nonwhite	1.31	.22	67.1	26.9	0.4	66.2	28.1	84.9	0.4
Covington									
Total	1.00	.28	84.5	10.7	0.7	81.8	13.1	85.7	0.0
White	.85	.36	93.5	3.4	0.8	90.3	5.3	85.1	0.0
Nonwhite	1.40	.18	70.9	21.8	0.5	69.7	24.2	87.4	0.0
De Soto									
Total	1.01	.16	87.9	9.4	0.4	85.9	10.8	81.4	0.0
White	.82	.15	96.3	2.7	0.4	93.6	4.6	79.5	0.0
Nonwhite	1.49	.17	75.8	19.3	0.4	75.2	19.5	83.8	0.0
Forrest									
Total	.74	.28	82.6	14.8	0.5	79.0	17.1	80.5	4.5
White	.64	.31	92.2	6.3	0.6	88.2	8.9	79.1	5.6
Nonwhite	1.12	.23	62.2	33.0	0.3	59.7	34.6	84.6	1.3
Franklin									
Total	.99	.40	80.5	14.2	0.4	78.3	15.3	88.4	0.0
White	.81	.50	89.5	4.5	0.6	88.8	6.9	88.2	0.0
Nonwhite	1.36	.30	71.8	23.6	0.1	67.2	24.2	88.8	0.0
George									
Total	.93	.22	91.4	5.9	0.9	88.8	7.2	86.0	0.0
White	.88	.23	93.5	3.9	1.0	91.0	5.4	85.8	0.0
Nonwhite	1.35	.15	77.3	18.7	0.3	76.2	17.5	87.4	0.0
Greene									
Total	.99	.28	83.0	11.5	0.7	82.8	11.8	85.5	0.0
White	.90	.30	91.2	5.5	0.6	88.5	7.9	85.2	0.0
Nonwhite	1.37	.23	58.1	29.8	0.8	67.2	22.6	86.8	0.0
Grenada									
Total	.97	.29	77.8	19.3	0.5	76.3	20.1	77.3	8.1
White	.74	.37	93.4	5.2	0.6	90.7	7.3	73.0	12.3
Nonwhite	1.37	.23	65.2	30.7	0.4	64.0	30.9	83.1	2.3
Hancock									
Total	.91	.27	89.6	8.1	0.4	86.1	10.8	83.9	2.7
White	.87	.28	93.3	4.9	0.4	89.5	7.7	83.2	2.8
Nonwhite	1.27	.23	72.0	24.0	0.2	69.8	25.4	87.7	2.3
Harrison									
Total	.74	.19	86.7	10.7	0.6	83.3	13.0	76.0	6.9
White	.69	.20	92.2	5.8	0.6	88.5	8.3	75.6	7.7
Nonwhite	1.06	.14	69.0	26.5	0.7	65.0	29.9	77.9	2.6
Hinds									
Total	.82	.21	79.8	17.1	0.3	77.0	19.1	76.4	4.0
White	.67	.26	93.3	5.2	0.4	90.0	7.3	76.2	4.9
Nonwhite	1.10	.16	66.0	29.3	0.3	62.7	32.1	76.9	2.4
Holmes									
Total	1.20	.32	68.5	25.9	0.4	67.4	26.5	83.3	0.0
White	.74	.55	92.5	4.8	0.6	87.4	7.8	85.7	0.0
Nonwhite	1.51	.26	62.6	31.1	0.4	62.0	31.6	81.8	0.0

ble 10.-(continued)

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
umphreys									
Total	1.23	.23	75.0	19.7	0.5	71.7	22.1	84.8	0.0
White	.79	.34	93.4	5.3	0.7	90.7	5.6	86.4	0.0
Nonwhite	1.57	.20	68.5	24.8	0.5	65.1	27.8	83.9	0.0
saquena									
Total	1.24	.25	77.4	19.5	0.5	77.6	18.2	81.7	0.0
White	.78	.29	90.3	6.2	1.1	92.0	3.4	79.4	0.0
Nonwhite	1.65	.23	72.2	24.9	0.2	71.7	24.2	82.9	0.0
wamba									
Total	.80	.36	93.6	4.8	1.0	89.2	7.6	82.9	1.6
White	.80	.37	95.0	3.7	1.1	90.6	6.4	83.1	1.7
Nonwhite	.86	.30	72.0	21.5	0.6	68.1	25.2	79.8	0.0
ckson									
Total	.86	.12	89.6	8.3	0.5	87.0	10.0	80.5	1.6
White	.82	.12	93.2	5.2	0.5	90.9	6.5	79.8	1.9
Nonwhite	1.15	.10	74.4	21.6	0.3	70.8	24.5	84.0	0.0
sper									
Total	1.01	.31	83.8	13.0	0.4	82.4	14.0	84.3	0.0
White	.80	.44	94.8	4.1	0.5	92.0	5.8	85.9	0.0
Nonwhite	1.32	.21	75.7	19.5	0.4	75.1	20.3	81.6	0.0
ferson									
Total	1.26	.30	70.6	22.0	0.3	72.2	21.7	82.4	0.0
White	.85	.59	98.2	1.2	0.6	91.1	7.2	81.9	0.0
Nonwhite	1.43	.24	65.6	25.8	0.2	68.4	24.6	82.6	0.0
f Davis									
Total	.99	.27	82.3	14.1	0.4	79.3	16.5	85.4	1.6
White	.81	.35	93.1	5.9	0.4	91.7	6.5	84.4	2.1
Nonwhite	1.21	.21	74.2	20.1	0.3	70.4	23.7	86.6	0.8
es									
Total	.84	.31	84.0	13.4	0.4	80.5	14.9	81.2	4.7
White	.75	.34	93.5	5.0	0.4	88.5	7.4	80.8	5.3
Nonwhite	1.16	.23	63.1	31.6	0.4	62.9	31.3	82.7	2.8
nper									
Total	1.07	.36	81.5	11.4	0.3	80.5	12.8	84.4	0.0
White	.75	.68	97.1	0.7	0.5	91.6	4.6	84.5	0.0
Nonwhite	1.41	.23	76.3	14.9	0.2	75.8	16.3	84.2	0.0
ayette									
Total	.64	.29	86.0	12.2	0.3	82.3	14.2	78.4	4.8
White	.48	.38	95.4	4.1	0.3	92.3	5.9	78.3	6.6
Nonwhite	1.30	.18	72.6	23.8	0.2	69.9	24.4	78.9	0.2
nar									
Total	.93	.26	90.2	8.3	0.8	87.2	9.4	85.4	0.7
White	.88	.26	94.5	4.3	0.9	91.4	5.5	85.0	0.9
Nonwhite	1.31	.23	69.8	27.5	0.3	65.3	30.1	87.6	0.0
derdale									
Total	.81	.34	79.9	16.0	0.8	76.9	18.2	77.8	6.8
White	.69	.40	92.4	6.1	0.9	88.3	8.4	75.8	8.6
Nonwhite	1.12	.24	62.2	30.2	0.5	59.7	33.1	82.9	2.2
rence									
Total	1.00	.28	86.8	10.8	0.4	83.3	13.3	85.6	0.0
White	.86	.31	96.1	2.6	0.6	91.9	5.5	84.2	0.0
Nonwhite	1.35	.24	71.1	24.5	0.2	69.5	25.8	88.5	0.0

Table 10.-(continued)

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
Leake									
Total	.95	.38	85.1	12.5	0.8	82.4	14.1	87.0	0.0
White	.80	.53	93.8	4.8	1.1	90.1	7.4	87.8	0.0
Nonwhite	1.23	.22	75.4	21.0	0.5	74.5	21.0	85.0	0.0
Lee									
Total	.82	.27	88.0	9.8	0.6	85.0	11.9	81.4	2.6
White	.76	.29	93.6	4.6	0.7	91.2	6.1	81.4	3.3
Nonwhite	1.13	.21	71.2	25.7	0.3	67.1	28.5	81.4	0.0
Leflore									
Total	1.07	.25	75.6	21.0	0.4	72.3	23.4	79.1	3.3
White	.77	.34	93.9	4.6	0.4	89.9	7.7	75.9	6.2
Nonwhite	1.34	.21	67.2	28.6	0.4	63.7	31.1	81.6	1.0
Lincoln									
Total	.91	.31	82.8	14.8	0.3	80.4	15.9	81.2	3.8
White	.78	.38	93.7	4.7	0.5	91.2	6.2	80.4	4.8
Nonwhite	1.29	.22	65.7	30.7	0.1	63.8	30.9	83.5	0.9
Lowndes									
Total	.82	.22	79.1	16.4	0.5	76.7	18.5	81.0	1.3
White	.67	.23	93.1	4.9	0.5	88.8	8.1	80.4	2.0
Nonwhite	1.25	.20	60.1	32.2	0.4	59.4	33.4	82.1	0.0
Madison									
Total	1.11	.24	75.7	20.2	0.3	74.1	21.4	81.0	1.1
White	.82	.33	95.1	3.0	0.5	92.2	5.6	80.5	2.6
Nonwhite	1.33	.19	68.2	26.8	0.2	66.4	28.1	81.4	0.1
Marion									
Total	.96	.28	85.1	12.3	0.5	81.4	13.1	83.9	2.6
White	.82	.32	93.3	4.8	0.6	87.8	7.1	82.3	3.5
Nonwhite	1.36	.23	72.6	23.8	0.3	71.2	22.6	87.5	0.7
Marshall									
Total	1.13	.21	80.4	16.6	0.3	78.2	17.8	80.8	0.9
White	.81	.30	93.8	4.5	0.6	92.2	5.4	81.8	2.0
Nonwhite	1.38	.18	74.4	22.1	0.2	72.2	23.2	80.1	0.1
Monroe									
Total	.93	.30	83.9	13.5	0.6	80.0	16.0	83.9	0.0
White	.79	.34	93.5	5.4	0.6	89.7	7.5	83.2	0.0
Nonwhite	1.35	.24	68.4	26.7	0.5	64.6	29.7	85.5	0.0
Montgomery									
Total	1.04	.34	82.0	14.8	0.3	79.3	17.0	84.2	2.4
White	.85	.50	93.8	4.6	0.5	89.6	7.9	84.0	3.3
Nonwhite	1.36	.22	73.3	22.4	0.2	71.0	24.2	84.5	0.8
Neshoba									
Total	.93	.35	85.5	11.3	0.8	83.9	11.7	85.0	1.7
White	.83	.46	93.3	4.8	1.1	89.4	7.0	85.6	2.1
Nonwhite	1.24	.16	73.4	21.3	0.4	74.3	19.9	82.1	0.0
Newton									
Total	.88	.42	84.2	12.1	0.6	81.5	13.9	83.7	0.0
White	.75	.52	93.5	4.8	0.8	90.5	6.1	83.2	0.0
Nonwhite	1.28	.26	71.5	22.2	0.4	68.0	25.7	85.2	0.0
Noxubee									
Total	1.22	.26	75.7	19.0	0.3	75.5	20.3	84.3	0.0
White	.80	.42	94.5	3.9	0.6	92.2	6.4	87.8	0.0
Nonwhite	1.52	.21	70.5	23.1	0.2	70.1	24.8	82.0	0.0

ble 10.-(continued)

rea nd ace	Depend-ency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Insti-tutions
ktibbeha									
Total	.70	.22	82.9	14.6	0.6	78.0	17.9	82.9	0.0
White	.47	.28	94.8	4.6	0.7	91.1	6.5	83.2	0.0
Nonwhite	1.36	.17	69.8	25.6	0.5	65.8	28.4	82.3	0.0
anola									
Total	1.12	.28	78.0	17.4	0.5	77.2	17.9	81.3	0.5
White	.83	.39	93.1	5.5	0.6	90.9	6.5	82.3	0.9
Nonwhite	1.50	.21	69.5	24.2	0.3	68.7	25.0	80.1	0.0
earl River									
Total	.87	.22	88.9	8.8	0.7	85.9	10.2	84.5	1.7
White	.81	.24	93.8	4.6	0.8	90.2	6.4	84.3	2.1
Nonwhite	1.20	.17	72.7	22.7	0.3	71.1	23.6	85.5	0.0
erry									
Total	.97	.26	85.9	11.4	0.6	83.2	12.9	87.9	0.0
White	.86	.27	92.5	5.6	0.7	88.4	8.5	87.2	0.0
Nonwhite	1.36	.24	74.4	21.6	0.3	71.8	22.5	89.4	0.0
ike									
Total	.97	.34	78.3	18.3	0.3	77.7	18.7	85.4	1.8
White	.80	.50	92.8	5.5	0.2	89.8	7.8	85.1	2.7
Nonwhite	1.24	.21	66.8	28.5	0.4	67.7	27.7	85.9	0.0
Pontotoc									
Total	.90	.41	91.1	7.6	0.5	86.8	10.6	85.0	2.4
White	.84	.47	94.2	4.5	0.5	90.3	7.5	85.5	2.6
Nonwhite	1.21	.21	81.5	17.2	0.4	76.0	20.6	81.9	0.3
Prentiss									
Total	.83	.36	88.6	10.5	1.0	85.3	12.0	81.3	4.8
White	.78	.39	91.7	7.5	1.0	87.8	9.4	81.3	5.2
Nonwhite	1.23	.18	74.0	24.9	0.5	72.5	25.3	81.5	0.5
Quitman									
Total	1.26	.24	77.8	18.3	0.5	75.5	20.0	86.2	0.0
White	.85	.30	94.3	5.1	0.6	89.6	8.2	87.6	0.0
Nonwhite	1.69	.21	70.1	24.6	0.5	68.6	25.9	85.2	0.0
Rankin									
Total	.80	.24	89.3	8.8	0.5	85.1	10.6	58.9	27.8
White	.74	.22	95.0	3.9	0.6	91.2	5.6	60.1	24.3
Nonwhite	.98	.27	75.6	20.7	0.3	71.2	22.1	56.6	34.3
Scott									
Total	.97	.28	87.5	9.2	0.7	84.7	11.5	84.1	0.7
White	.85	.32	95.2	3.0	0.8	91.7	5.7	84.5	1.0
Nonwhite	1.26	.22	75.7	18.6	0.5	74.0	20.3	83.3	0.1
Sharkey									
Total	1.27	.21	80.5	16.9	0.3	75.8	20.4	83.4	0.0
White	.79	.33	94.0	5.0	0.7	92.2	5.9	84.0	0.0
Nonwhite	1.65	.17	76.1	20.7	0.1	70.3	25.2	82.9	0.0
Simpson									
Total	.95	.31	86.4	10.7	0.5	84.0	12.0	83.2	3.0
White	.83	.36	92.7	4.2	0.6	89.9	6.2	83.2	2.7
Nonwhite	1.29	.23	77.0	20.3	0.3	74.5	21.2	83.2	3.8
Smith									
Total	.89	.32	88.7	9.1	0.8	87.8	8.6	85.0	0.0
White	.80	.39	93.8	4.8	0.8	91.3	6.0	85.4	0.0
Nonwhite	1.28	.14	78.6	17.7	1.0	79.5	14.5	82.5	0.0

Table 10.-(continued)

Area and Race	Dependency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Institutions
Stone									
Total	.82	.28	85.7	11.9	0.3	84.6	12.3	76.9	7.6
White	.73	.33	93.3	4.9	0.3	91.5	5.7	76.0	9.4
Nonwhite	1.21	.18	71.3	25.1	0.1	68.8	27.2	80.6	0.0
Sunflower									
Total	1.12	.23	76.0	19.1	0.6	73.4	20.6	80.1	2.3
White	.72	.37	94.4	3.2	0.6	91.0	6.1	80.7	3.3
Nonwhite	1.46	.18	70.7	23.7	0.5	67.1	25.8	79.7	1.6
Tallahatchie									
Total	1.28	.27	71.2	20.6	0.4	70.4	21.1	85.0	0.2
White	.86	.42	90.9	6.1	0.4	88.9	7.3	85.8	0.5
Nonwhite	1.68	.21	64.8	25.3	0.4	62.7	26.8	84.4	0.0
Tate									
Total	1.04	.24	80.9	15.6	0.5	79.7	16.1	83.3	0.1
White	.72	.34	95.0	3.7	0.7	91.8	5.5	83.2	0.0
Nonwhite	1.58	.17	71.6	23.6	0.4	71.6	23.2	83.5	0.1
Tippah									
Total	.87	.37	91.1	7.0	0.6	87.1	9.4	84.2	0.7
White	.82	.41	94.1	4.4	0.8	90.1	6.7	83.7	0.8
Nonwhite	1.23	.23	79.5	17.0	0.1	76.1	19.2	87.1	0.0
Tishomingo									
Total	.82	.41	93.4	5.5	0.6	88.5	9.3	85.3	0.0
White	.80	.42	94.7	4.4	0.6	89.8	8.2	85.2	0.0
Nonwhite	1.11	.33	66.7	27.0	0.4	65.8	27.8	86.4	0.0
Tunica									
Total	1.41	.25	71.9	22.7	0.5	71.8	21.4	84.4	0.1
White	.82	.34	92.6	5.5	0.6	90.7	5.9	82.6	0.0
Nonwhite	1.74	.23	67.7	26.1	0.5	67.2	25.1	85.1	0.1
Union									
Total	.86	.40	90.9	8.2	0.8	87.7	9.6	83.3	2.8
White	.80	.43	95.4	3.7	1.0	91.8	5.7	83.8	3.0
Nonwhite	1.20	.26	75.6	23.6	0.2	71.3	25.0	79.9	1.2
Walthall									
Total	.97	.30	85.5	12.2	0.5	83.0	13.6	83.4	3.0
White	.77	.43	95.1	3.4	0.5	93.0	4.5	81.5	4.4
Nonwhite	1.34	.18	76.8	20.0	0.4	74.0	21.8	87.5	0.0
Warren									
Total	.96	.28	80.4	16.3	0.4	78.1	17.7	77.6	4.0
White	.80	.25	93.5	5.0	0.3	91.6	6.1	73.3	6.7
Nonwhite	1.24	.31	63.9	30.6	0.4	62.1	31.6	81.8	1.3
Washington									
Total	1.09	.21	75.5	20.5	0.4	72.3	22.9	79.9	1.5
White	.79	.21	93.3	5.1	0.6	90.1	7.3	77.6	3.7
Nonwhite	1.42	.21	65.1	29.5	0.4	61.3	32.5	81.3	0.2
Wayne									
Total	1.00	.26	84.1	10.6	0.6	80.9	13.7	84.3	2.6
White	.87	.30	92.3	5.1	0.8	89.7	6.5	83.1	3.8
Nonwhite	1.33	.20	73.0	18.1	0.4	67.3	24.7	86.8	0.0
Webster									
Total	.93	.43	89.3	8.4	0.8	85.7	10.4	83.2	0.7
White	.85	.53	94.1	4.4	0.8	90.1	6.3	83.3	0.8
Nonwhite	1.29	.20	79.5	16.5	0.9	76.0	19.4	82.8	0.0

le 10.-(continued)

rea nd ace	Depend-ency Ratio(1)	Index of Aging(2)	Percent of Population						
			Under 6		Under 18			65 and Over	
			In Husband-Wife Families	In Female Headed Families	In Own Home	In Husband-Wife Families	In Female Headed Families	In Own Homes	In Insti-tutions
inson									
otal	1.12	.28	76.9	17.0	0.4	74.3	18.7	86.4	0.0
hite	.85	.41	95.1	3.4	1.0	90.5	5.9	87.6	0.0
onwhite	1.28	.23	70.1	22.1	0.2	68.8	23.1	85.7	0.0
ston									
otal	.95	.32	85.3	11.0	0.6	82.6	13.4	83.9	0.0
hite	.78	.44	94.4	4.4	0.7	91.0	6.8	83.3	0.0
onwhite	1.29	.21	77.2	16.8	0.5	74.4	19.8	85.0	0.0
bbusha									
otal	1.05	.40	82.1	15.2	0.3	79.4	16.7	84.2	0.9
hite	.85	.61	94.2	4.0	0.5	89.8	7.9	85.4	1.2
onwhite	1.43	.23	72.2	24.2	0.3	70.3	24.4	81.5	0.0
bo									
otal	1.11	.28	75.5	20.0	0.3	73.9	20.8	80.0	1.3
hite	.82	.33	95.9	3.1	0.3	92.3	5.3	79.6	2.8
onwhite	1.46	.25	64.1	29.5	0.3	62.5	30.5	80.3	0.0

rce: U.S. Bureau of the Census, U.S. Census of Population, 1970, Report PC(1)-B1, Table 52, Reports C1)-B2, PC(1)-B19, PC(1)-B26, PC(1)-B44, Tables 19; Report PC(1)-C1, Tables 89, 136, 159; PC(1)-D1, les 204, 205, 207, 280, 281 (Washington, D.C.: USGPO), Summary Tape of 1970, U.S. Census of ulation (Mississippi State, Mississippi: Summary Tape Processing Center), Second Count, Tabs 2. 6. 7, 8.

TABLE 11.-VITAL STATISTICS--MARRIAGES BY RESIDENCE OF BRIDES, DIVORCES BY PLACE OF OCCURRENCE, AND BIRTHS, DEATHS, AND VITAL RATES BY PLACE OF RESIDENCE OF THE POPULATION, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI, AND MISSISSIPPI BY COUNTIES, 1970.

ea d ce	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
ed States							
tal	2,163,256	708,000	3,731,386	74,677	1,921,031	18.4	9.5
hite	---	---	3,091,264	54,876	1,682,096	17.4	9.5
nwhite	---	---	640,122	19,791	238,935	25.1	9.4
h							
tal	688,956(2)	242,000	1,308,462	26,908	593,601	20.8	9.4
hite	---	---	889,060	16,891	463,052	17.6	9.2
nwhite	---	---	419,402	10,017	130,549	34.1	10.6

1)Per 1,000.

2)Oklahoma is not included in this figure.

3)East South Central.

4)The population base for these computations is Non-Negro rather than White.

5)The population base for these computations is Negro rather than Non-White.

Table 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
E.S.C.(3)							
Total	153,198	50,607	248,310	5,740	128,478	17.4	10.0
White	---	---	182,052	3,408	97,873	17.8(4)	9.5(4)
Nonwhite	---	---	66,258	2,332	30,605	25.8(5)	11.9(5)
Mississippi							
Total	22,563	8,211	48,141	1,403	23,305	21.7	10.5
White	14,732	6,227	24,893	480	13,623	17.8	9.8
Nonwhite	7,831	1,984	23,248	923	9,682	28.3	11.8
Adams							
Total	369	145	866	29	356	23.2	9.5
White	206	91	365	8	141	18.8	7.3
Nonwhite	163	54	501	21	215	28.0	12.0
Alcorn							
Total	293	128	500	17	323	18.4	11.9
White	257	113	424	9	273	17.7	11.4
Nonwhite	36	15	76	8	50	23.5	15.5
Amite							
Total	104	18	250	11	150	18.2	10.9
White	59	10	84	1	88	12.3	12.9
Nonwhite	45	8	166	10	62	23.9	8.9
Attala							
Total	213	58	386	11	267	19.7	13.6
White	137	39	169	5	164	14.6	14.1
Nonwhite	76	19	217	6	103	27.1	12.9
Benton							
Total	64	25	126	5	70	16.8	9.3
White	48	18	59	1	45	13.5	10.3
Nonwhite	16	7	67	4	25	21.3	7.9
Bolivar							
Total	453	145	1,355	42	529	27.4	10.7
White	215	83	291	4	168	15.3	8.8
Nonwhite	238	62	1,064	38	361	35.0	11.9
Calhoun							
Total	134	40	264	4	171	18.1	11.7
White	96	33	157	1	138	14.5	12.8
Nonwhite	38	7	107	3	33	28.1	8.6
Carroll							
Total	75	13	152	2	91	16.2	9.7
White	42	9	54	0	49	11.7	10.6
Nonwhite	33	4	98	2	42	20.5	8.8
Chickasaw							
Total	216	52	348	24	215	20.7	12.8
White	153	40	167	9	128	15.4	11.8
Nonwhite	63	12	181	15	87	30.3	14.5
Choctaw							
Total	55	19	128	5	113	15.2	13.4
White	37	15	76	2	71	12.5	11.7
Nonwhite	18	4	52	3	42	22.0	17.8
Claiborne							
Total	73	24	209	8	104	20.7	10.3
White	24	6	49	2	39	19.1	15.2
Nonwhite	49	18	160	6	65	21.3	8.6
Clarke							
Total	142	49	271	8	175	18.0	11.6
White	86	35	134	2	101	13.9	10.5
Nonwhite	56	14	137	6	74	25.3	13.7

ble 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
ay							
Total	164	61	386	8	179	20.5	9.5
White	90	38	142	4	92	14.9	9.7
Nonwhite	74	23	244	4	87	26.2	9.3
ahoma							
Total	367	128	949	135	502	23.5	12.4
White	144	61	232	5	142	16.3	10.0
Nonwhite	223	67	717	30	360	27.3	13.7
piah							
Total	282	70	483	19	300	19.5	12.1
White	135	40	166	1	155	13.5	12.6
Nonwhite	147	30	317	18	145	25.5	11.6
vington							
Total	178	46	288	7	129	20.6	9.2
White	120	30	163	3	96	17.3	10.2
Nonwhite	58	16	125	4	33	27.4	7.2
Soto							
Total	281	182	819	15	255	22.8	7.1
White	177	148	512	7	138	22.0	5.9
Nonwhite	104	34	307	8	117	24.3	9.3
rest							
Total	695	344	1,217	32	567	21.0	9.8
White	520	280	797	13	370	18.3	8.5
Nonwhite	175	64	420	19	197	29.3	13.8
nklin							
Total	85	13	153	4	110	19.1	13.7
White	46	11	66	0	70	13.5	14.3
Nonwhite	39	2	87	4	40	27.9	12.8
rge							
Total	140	44	290	8	113	23.3	9.1
White	127	43	250	5	100	22.7	9.1
Nonwhite	13	1	40	3	13	27.4	8.9
ene							
Total	54	23	195	4	97	22.8	11.7
White	39	21	133	3	72	20.0	10.8
Nonwhite	15	2	62	1	25	32.8	13.2
nada							
Total	237	68	448	9	228	22.6	11.5
White	139	48	202	3	124	18.1	11.1
Nonwhite	98	20	246	6	104	28.3	12.0
cock							
Total	170	95	342	6	160	19.7	9.2
White	142	88	287	5	135	19.3	9.1
Nonwhite	28	7	55	1	25	22.1	10.0
rison							
Total	1,571	839	3,223	64	1,043	23.9	7.7
White	1,290	738	2,491	40	818	22.4	7.4
Nonwhite	281	101	732	24	225	31.5	9.7
ds							
Total	2,327	965	4,683	101	1,801	21.8	8.4
White	1,472	719	2,286	30	1,023	17.5	7.8
Nonwhite	855	246	2,397	71	778	28.5	9.2
nes							
Total	259	43	555	14	341	24.0	14.7
White	85	18	94	2	112	12.8	15.3
Nonwhite	174	25	461	12	229	29.2	14.5

Table 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
Humphreys							
Total	148	23	332	22	191	22.7	13.1
White	59	9	85	2	70	16.6	13.7
Nonwhite	89	14	247	20	121	26.1	12.8
Issaquena							
Total	11	5	56	4	36	20.5	13.2
White	3	5	17	1	8	16.4	7.7
Nonwhite	8	0	39	3	28	23.0	16.5
Itawamba							
Total	119	61	279	8	189	16.6	11.2
White	113	57	260	7	180	16.3	11.3
Nonwhite	6	4	19	1	9	20.7	9.8
Jackson							
Total	935	415	2,128	41	573	24.2	6.5
White	774	375	1,685	26	445	22.9	6.0
Nonwhite	161	40	443	15	128	30.9	8.9
Jasper							
Total	171	39	335	7	190	20.9	11.9
White	98	22	133	3	106	15.5	12.4
Nonwhite	73	17	202	4	84	27.2	11.3
Jefferson							
Total	57	12	194	7	120	20.9	12.9
White	10	2	20	0	28	8.7	12.2
Nonwhite	47	10	174	7	92	24.9	13.2
Jeff Davis							
Total	113	19	276	13	137	21.3	10.6
White	58	16	99	4	65	15.4	10.1
Nonwhite	55	3	177	9	72	27.2	11.1
Jones							
Total	586	262	999	31	651	17.7	11.6
White	467	220	671	12	458	15.8	10.8
Nonwhite	119	42	328	19	193	23.5	13.9
Kemper							
Total	68	17	177	8	121	17.3	11.8
White	34	9	41	2	62	9.2	14.0
Nonwhite	34	8	136	6	59	23.5	10.2
Lafayette							
Total	169	69	470	6	193	19.4	8.0
White	112	60	279	2	133	16.1	7.7
Nonwhite	57	9	191	4	60	27.9	8.8
Lamar							
Total	176	50	308	7	160	20.3	10.5
White	154	48	246	6	138	18.6	10.5
Nonwhite	22	2	62	1	22	30.8	10.9
Lauderdale							
Total	673	284	1,552	55	827	23.1	12.3
White	437	224	879	27	542	19.0	11.7
Nonwhite	236	60	673	28	285	32.3	13.7
Lawrence							
Total	143	28	244	8	121	21.9	10.9
White	82	19	139	4	77	18.4	10.2
Nonwhite	61	9	105	4	44	29.3	12.3
Leake							
Total	229	51	324	12	233	19.0	13.6
White	130	42	154	4	144	14.8	3.9
Nonwhite	99	9	170	8	89	25.3	13.3

le 11.-(continued)

rea nd ace	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
otal	536	217	966	18	411	20.9	8.9
hite	407	196	697	11	308	19.1	8.4
onwhite	129	21	269	7	103	28.1	10.8
ore							
otal	445	115	1,068	40	503	25.4	11.9
hite	215	77	310	11	184	17.6	10.5
onwhite	230	38	758	29	319	30.9	13.0
coln							
otal	288	54	587	16	287	22.4	11.0
hite	193	42	347	10	192	19.1	10.6
onwhite	95	12	240	6	95	29.8	11.8
ndes							
otal	420	157	1,067	35	439	21.5	8.8
hite	267	121	604	10	236	18.1	7.1
onwhite	153	36	463	25	203	28.4	12.5
ison							
otal	275	106	799	28	363	26.9	12.2
hite	101	45	196	5	136	17.5	12.2
onwhite	174	61	603	23	227	32.5	12.2
ion							
otal	317	103	418	13	271	18.3	11.8
hite	207	78	224	5	194	14.2	12.3
onwhite	110	25	194	8	77	27.2	10.8
shall							
otal	225	108	591	15	234	24.6	9.7
hite	109	68	161	1	91	17.6	10.0
onwhite	116	40	430	14	143	28.9	9.6
roe							
otal	287	121	681	23	372	20.0	10.9
hite	204	93	408	10	246	17.2	10.4
onwhite	83	28	273	13	126	26.3	12.1
tgomery							
otal	146	23	255	10	175	19.7	13.5
hite	81	16	75	3	98	10.5	13.8
onwhite	65	7	180	7	77	31.1	13.3
noba							
otal	180	107	412	21	289	19.8	13.9
hite	120	78	234	6	215	15.2	14.0
onwhite	60	29	178	15	74	33.0	13.7
ton							
otal	218	31	382	14	261	20.1	13.7
hite	141	19	198	5	184	14.8	13.8
onwhite	77	12	184	9	77	32.7	13.7
ubee							
otal	107	26	326	10	170	22.8	11.9
hite	51	12	83	3	56	17.1	11.6
onwhite	56	14	243	7	114	25.7	12.1
bbeha							
otal	249	59	572	10	248	19.9	8.6
hite	163	42	312	5	124	16.8	6.7
onwhite	86	17	260	5	124	25.5	12.2

Table 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
Panola							
Total	276	93	598	19	332	22.3	12.4
White	151	65	214	5	160	16.4	12.3
Nonwhite	125	28	384	14	172	27.9	12.5
Pearl River							
Total	329	140	575	24	264	20.7	9.5
White	276	132	451	13	205	19.9	9.0
Nonwhite	53	8	124	11	59	24.1	11.5
Perry							
Total	102	22	185	6	112	20.4	12.4
White	84	19	126	4	83	18.9	12.4
Nonwhite	18	3	59	2	29	24.7	12.1
Pike							
Total	360	123	653	17	425	20.6	13.4
White	215	80	297	4	255	16.6	14.2
Nonwhite	145	43	356	13	170	25.7	12.3
Pontotoc							
Total	153	72	261	5	228	15.0	13.1
White	133	58	207	2	187	14.6	13.1
Nonwhite	20	14	54	3	41	17.2	13.1
Prentiss							
Total	206	73	349	10	243	17.3	12.1
White	197	71	293	8	216	16.4	12.1
Nonwhite	9	2	56	2	27	24.3	11.7
Quitman							
Total	172	44	405	15	201	25.5	12.7
White	92	27	124	3	67	18.4	10.0
Nonwhite	80	17	281	12	134	30.7	14.6
Rankin							
Total	407	94	901	22	304	20.5	6.9
White	309	70	646	16	210	20.5	6.7
Nonwhite	98	24	255	6	94	20.5	7.6
Scott							
Total	264	74	465	12	270	21.8	12.6
White	171	50	267	7	166	18.7	11.6
Nonwhite	93	24	198	5	104	28.0	14.7
Sharkey							
Total	83	24	240	6	98	26.9	11.0
White	38	8	61	2	33	19.4	10.5
Nonwhite	45	16	179	4	65	30.9	11.2
Simpson							
Total	229	68	441	12	229	22.1	11.5
White	142	56	234	4	144	17.1	10.5
Nonwhite	87	12	207	8	85	33.0	13.5
Smith							
Total	104	38	276	9	150	20.4	11.1
White	76	35	166	4	123	15.6	11.6
Nonwhite	28	3	110	5	27	37.4	9.2
Stone							
Total	86	42	173	8	98	21.4	12.1
White	65	31	115	3	60	18.5	9.6
Nonwhite	21	11	58	5	38	30.9	20.3

ble 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
nflower							
Total	345	65	913	32	406	24.6	11.0
White	134	34	197	2	183	14.5	13.4
Nonwhite	211	31	716	30	223	30.6	9.5
llahatchie							
Total	182	49	469	16	259	24.3	13.4
White	92	27	103	1	98	13.5	12.8
Nonwhite	90	22	366	15	161	31.3	13.8
te							
Total	148	38	398	20	179	21.5	9.7
White	89	24	161	2	80	16.5	8.2
Nonwhite	59	14	237	18	99	27.0	11.3
pah							
Total	182	36	272	5	168	17.2	10.6
White	148	32	223	4	144	16.8	10.0
Nonwhite	34	4	49	1	24	18.8	9.2
homingo							
Total	131	46	262	8	175	17.5	11.7
White	130	44	252	7	167	17.7	11.7
Nonwhite	1	2	10	1	8	14.9	12.0
nica							
Total	121	23	329	19	166	27.8	14.0
White	39	12	58	2	46	18.0	14.2
Nonwhite	82	11	271	17	120	31.5	13.9
ion							
Total	200	50	315	6	208	16.5	10.9
White	161	45	227	2	173	14.1	10.7
Nonwhite	39	5	88	4	35	29.8	11.9
lthall							
Total	97	29	237	6	133	19.0	10.6
White	57	19	99	3	85	13.4	11.5
Nonwhite	40	10	138	3	48	27.1	9.4
rren							
Total	439	204	1,034	35	528	23.0	11.7
White	265	137	547	9	250	20.6	9.4
Nonwhite	174	67	487	26	278	26.3	15.0
shington							
Total	749	270	1,835	49	751	26.0	10.6
White	427	171	614	5	251	19.3	7.9
Nonwhite	322	99	1,221	44	500	31.5	12.9
yne							
Total	151	79	371	7	179	22.3	10.8
White	112	61	222	3	117	19.9	10.5
Nonwhite	45	18	149	4	62	27.2	11.3
bster							
Total	83	21	175	9	136	17.4	13.5
White	71	20	111	3	105	14.3	13.5
Nonwhite	12	1	64	6	31	28.3	13.7
kinson							
Total	109	23	225	15	130	20.3	11.7
White	40	9	48	2	58	13.4	16.2
Nonwhite	69	14	177	13	72	23.5	9.6

Table 11.-(continued)

Area and Race	Number					Vital Rates(1)	
	Marriages	Divorces	Births	Infant Deaths	All Deaths	Birth	Death
Winston							
Total	164	62	327	14	235	17.8	12.8
White	94	42	139	4	134	12.7	12.2
Nonwhite	70	20	188	10	101	25.2	13.6
Yalobusha							
Total	132	35	218	6	163	18.3	13.7
White	89	31	81	2	110	11.4	15.5
Nonwhite	43	4	137	4	53	28.5	11.0
Yazoo							
Total	261	75	555	17	381	20.3	14.0
White	159	47	203	4	141	16.0	11.1
Nonwhite	102	28	352	13	240	24.1	16.5

Source: Vital Statistics of the United States, 1970, Volume I, Tables 1-2 and 1-45; Volume II, Tables 1-1, 1-11, and 7-1; Volume III, Tables 1-6 and 2-2; Vital Statistics, Mississippi, 1970, (Jackson: Mississippi State Board of Health).

TABLE 12.-NUMBER OF HOUSEHOLDS AND FAMILIES AND PERCENTAGE OF SELECTED TYPES OF HEADS, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Household(1)			Families(2)			
	Total	Headed By Primary Individual		Total	Headed By		
		Male	Female		Husband-Wife	Other Male Head	Female Head
United States							
Total	63,637,721	7.3	12.3	51,168,599	86.0	3.2	10.8
Negro	6,235,714	9.8	12.2	4,863,401	67.7	4.8	27.4
Non-Negro	57,402,007	7.0	12.3	46,305,198	87.9	3.0	9.1
South							
Total	19,328,655	6.2	11.5	15,907,699	85.1	3.3	11.6
Negro	3,141,047	8.5	11.8	2,501,211	68.6	5.2	26.2
Non-Negro	16,187,608	5.7	11.4	13,406,488	88.2	2.9	8.9
E.S.C.(3)							
Total	3,885,037	5.1	11.0	3,258,771	84.6	3.4	11.9
Negro	662,389	8.0	12.5	526,846	67.9	5.4	26.7
Non-Negro	3,222,648	4.6	10.7	2,731,925	87.8	3.1	9.1
Mississippi							
Total	641,338	4.5	11.2	534,444	82.7	3.9	13.4
Negro	198,812	7.8	12.2	159,070	69.0	6.0	25.1
Non-Negro	442,526	4.4	10.8	375,474	88.5	3.0	8.5

(1) Households consist of persons occupying a housing unit. They may be families or units which are headed by primary individuals. Primary individuals are household heads either living alone or with nonrelations.

(2) Families consist of a household head plus one or more household members who are related to the head by blood, marriage, or adoption.

(3) East South Central.

Table 12.-(continued)

Area and Race	Household(1) Total	Household(1) Headed By Primary Individual Male	Household(1) Headed By Primary Individual Female	Families(2) Total	Families(2) Headed By Husband-Wife	Families(2) Headed By Other Male Head	Families(2) Headed By Female Head
Adams							
Total	11,025	6.3	12.4	8,964	79.3	3.3	17.3
Negro	4,871	7.7	14.8	3,774	64.1	5.0	30.9
Non-Negro	6,154	5.3	10.4	5,190	90.4	2.1	7.4
Alcorn							
Total	8,801	3.4	11.4	7,462	87.1	2.6	10.3
Negro	866	8.1	13.2	682	69.1	4.1	26.8
Non-Negro	7,935	3.3	11.2	6,780	88.9	2.4	8.7
Amite							
Total	3,869	6.6	10.4	3,214	84.0	4.4	11.6
Negro	1,553	7.8	9.7	1,282	74.8	6.7	18.5
Non-Negro	2,316	5.7	10.8	1,932	90.1	2.8	7.1
Attala							
Total	5,972	5.1	11.3	4,991	82.8	3.6	13.6
Negro	1,924	6.9	9.1	1,616	70.5	5.4	24.1
Non-Negro	4,048	4.2	12.4	3,375	88.7	2.7	8.6
Benton							
Total	2,024	4.8	8.2	1,760	88.0	2.9	9.1
Negro	578	4.5	2.2	539	80.5	3.2	16.3
Non-Negro	1,446	5.0	10.6	1,221	91.3	2.8	5.9
Bolivar							
Total	12,708	7.0	12.6	10,220	76.2	4.6	19.2
Negro	6,958	8.8	14.3	5,355	64.2	6.5	29.3
Non-Negro	5,750	4.8	10.6	4,865	89.4	2.4	8.2
Calhoun							
Total	4,528	4.3	11.2	3,824	87.3	3.4	9.3
Negro	799	4.8	6.1	712	75.1	6.5	18.4
Non-Negro	3,729	4.2	12.3	3,112	90.1	2.7	7.2
Carroll							
Total	2,573	5.5	8.0	2,225	83.2	4.6	12.1
Negro	1,058	7.8	7.2	900	75.1	6.4	18.4
Non-Negro	1,515	3.9	8.7	1,325	88.8	3.4	7.8
Chickasaw							
Total	4,949	4.7	10.8	4,181	84.4	3.2	12.4
Negro	1,378	7.5	8.1	1,164	74.0	5.8	20.3
Non-Negro	3,571	3.6	11.9	3,017	88.4	2.2	9.4
Choctaw							
Total	2,571	4.6	11.3	2,164	84.6	4.2	11.2
Negro	544	7.5	8.5	457	67.6	6.8	25.6
Non-Negro	2,027	3.8	12.0	1,707	89.2	3.5	7.3
Claiborne							
Total	2,669	7.5	14.7	2,075	75.9	4.9	19.2
Negro	1,769	8.4	15.4	1,348	68.8	5.6	25.5
Non-Negro	900	5.8	13.4	727	88.9	3.6	7.6
Clarke							
Total	4,572	6.1	11.1	3,785	83.6	4.1	12.3
Negro	1,363	9.3	10.7	1,090	72.5	5.4	22.1
Non-Negro	3,209	4.7	11.3	2,695	88.1	3.6	8.4
Clay							
Total	5,318	5.3	12.0	4,397	81.2	3.4	15.5
Negro	2,171	7.4	12.2	1,745	68.3	4.9	26.8
Non-Negro	3,147	3.8	11.9	2,652	89.6	2.4	8.0
Coahoma							
Total	11,185	8.0	14.6	8,658	76.1	4.0	19.9
Negro	6,496	10.7	15.6	4,785	64.5	6.0	29.6
Non-Negro	4,689	4.2	13.2	3,873	90.4	1.6	8.0

Table 12.-(continued)

Area and Race	Household(1) Total	Household(1) Headed By Primary Individual Male	Household(1) Headed By Primary Individual Female	Families(2) Total	Families(2) Headed By Husband-Wife	Families(2) Headed By Other Male Head	Families(2) Headed By Female Head
Copiah							
Total	7,093	5.1	12.9	5,816	79.2	4.3	16.4
Negro	2,994	6.8	11.5	2,447	67.9	6.2	25.9
Non-Negro	4,099	3.8	14.0	3,369	87.5	2.9	9.6
Covington							
Total	3,981	3.9	10.0	3,428	83.7	3.6	12.7
Negro	1,008	5.9	9.4	854	73.2	6.2	20.6
Non-Negro	2,973	3.2	10.2	2,574	87.2	2.7	10.1
De Soto							
Total	9,304	4.2	5.7	8,390	88.1	2.9	9.0
Negro	2,630	7.7	7.4	2,233	75.9	5.3	18.8
Non-Negro	6,674	2.8	5.0	6,157	92.5	2.0	5.5
Forrest							
Total	17,546	7.0	13.3	13,968	82.4	2.8	14.8
Negro	3,867	8.2	15.5	2,951	64.1	4.8	31.1
Non-Negro	13,679	6.7	12.7	11,027	87.3	2.2	10.4
Franklin							
Total	2,531	6.0	14.4	2,013	82.9	4.3	12.8
Negro	821	7.6	15.6	631	70.7	6.5	22.8
Non-Negro	1,710	5.3	13.9	1,382	88.4	3.3	8.2
George							
Total	3,576	4.4	7.7	3,144	88.9	3.3	7.8
Negro	325	5.5	8.6	279	76.0	6.8	17.2
Non-Negro	3,251	4.3	7.6	2,865	90.2	3.0	6.8
Greene							
Total	2,448	4.9	8.9	2,110	83.7	4.4	11.9
Negro	453	4.6	10.6	384	68.5	9.1	22.4
Non-Negro	1,995	5.0	8.5	1,726	87.1	3.4	9.6
Grenada							
Total	5,886	5.3	12.8	4,822	82.6	2.7	14.7
Negro	2,192	8.2	14.0	1,706	68.7	4.3	27.0
Non-Negro	3,694	3.6	12.0	3,116	90.2	1.9	7.9
Hancock							
Total	5,152	6.9	10.5	4,254	86.0	3.2	10.8
Negro	636	8.5	14.3	491	71.7	4.1	24.2
Non-Negro	4,516	6.7	10.0	3,763	87.9	3.1	9.1
Harrison							
Total	37,488	6.3	9.8	31,450	86.1	2.5	11.4
Negro	5,844	9.3	12.7	4,557	67.4	4.6	27.9
Non-Negro	31,644	5.8	9.2	26,893	89.3	2.1	8.6
Hinds							
Total	63,266	5.6	12.8	51,590	82.1	2.8	15.1
Negro	20,478	6.9	11.2	16,785	66.8	4.8	28.4
Non-Negro	42,788	5.0	13.6	34,805	89.4	1.9	8.7
Holmes							
Total	6,342	7.2	12.7	5,079	73.1	5.1	21.8
Negro	3,889	8.7	11.3	3,111	64.4	6.5	29.2
Non-Negro	2,453	4.8	15.0	1,968	86.8	3.0	10.2
Humphreys							
Total	3,863	6.3	12.4	3,140	77.6	4.5	17.7
Negro	2,195	8.0	13.6	1,721	68.0	5.9	26.1
Non-Negro	1,668	4.1	10.8	1,419	89.2	3.2	7.6
Issaquena							
Total	727	8.1	10.3	593	83.1	4.6	12.3
Negro	399	10.5	10.5	315	74.6	5.4	20.0
Non-Negro	328	5.2	10.1	278	92.8	3.6	3.6

able 12.-(continued)

Area and Race	Household(1) Total	Headed By Primary Individual Male	Female	Families(2) Total	Headed By Husband-Wife	Other Male Head	Female Head
awamba							
Total	5,206	2.5	7.3	4,696	89.6	2.5	8.0
Negro	261	6.1	8.8	222	69.8	5.0	25.2
Non-Negro	4,945	2.3	7.2	4,474	90.6	2.3	7.1
ıckson							
Total	24,584	5.4	6.5	21,647	88.7	2.5	8.8
Negro	3,397	8.5	9.2	2,795	72.7	4.4	22.9
Non-Negro	21,187	4.9	6.1	18,852	91.1	2.2	6.7
ısper							
Total	4,590	4.6	10.1	3,917	82.7	4.1	3.2
Negro	1,701	4.9	8.7	1,469	72.5	5.7	21.8
Non-Negro	2,889	4.4	10.9	2,448	88.9	3.2	8.0
fferson							
Total	2,422	6.5	11.8	1,979	73.8	5.8	20.5
Negro	1,624	6.3	11.2	1,341	67.6	7.0	25.4
Non-Negro	798	6.9	13.2	638	86.7	3.1	10.2
ff Davis							
Total	3,604	5.5	10.0	3,046	82.2	3.9	13.8
Negro	1,533	7.4	9.2	1,279	70.8	5.7	23.5
Non-Negro	2,071	4.2	10.5	1,767	90.5	2.6	6.9
nes							
Total	17,047	4.6	11.9	14,238	84.7	2.8	12.5
Negr	3,551	8.4	14.2	2,750	66.1	4.9	29.0
Non-Negro	13,496	3.6	11.3	11,488	89.2	2.3	8.6
mper							
Total	2,808	6.6	10.5	2,327	81.7	5.5	12.7
Negro	1,235	6.7	7.3	1,062	74.1	7.3	18.6
Non-Negro	1,573	6.5	13.1	1,265	88.1	4.0	7.8
fayette							
Total	6,431	7.8	9.3	5,334	86.5	2.6	10.9
Negro	1,502	4.3	8.3	1,313	72.4	4.2	23.4
Non-Negro	4,929	8.8	9.6	4,021	91.1	2.0	6.9
mar							
Total	4,506	4.6	10.1	3,846	87.0	2.8	10.3
Negro	514	8.0	12.6	408	64.7	5.9	29.4
Non-Negro	3,992	4.1	9.8	3,438	89.6	2.4	8.0
uderdale							
Total	20,963	5.8	14.4	16,734	82.4	2.8	14.8
Negro	5,642	8.1	16.2	4,273	64.8	5.5	29.7
Non-Negro	15,321	4.9	13.7	12,461	88.4	1.9	9.7
wrence							
Total	3,286	4.5	11.0	2,768	85.4	3.5	11.1
Negro	895	7.7	13.2	708	71.3	6.2	22.5
Non-Negro	2,391	3.7	10.2	2,060	90.2	2.6	7.2
ake							
Total	5,241	5.3	10.0	4,439	84.2	3.9	11.8
Negro	1,442	5.2	8.2	1,248	74.0	5.0	21.1
Non-Negro	3,799	5.3	10.7	3,191	88.3	3.5	8.2
e							
Total	14,422	4.5	10.9	12,209	87.0	2.5	10.4
Negro	2,506	6.9	12.3	2,023	68.6	5.2	26.2
Non-Negro	11,916	4.0	10.6	10,186	90.7	2.0	7.3
flore							
Total	11,859	6.6	14.4	9,369	78.7	3.6	17.7
Negro	6,045	9.4	15.3	4,552	68.0	5.0	27.0
Non-Negro	5,814	3.6	13.6	4,817	88.8	2.3	8.9

Table 12.-(continued)

Area and Race	Household(1) Total	Household(1) Headed By Primary Individual Male	Household(1) Headed By Primary Individual Female	Families(2) Total	Families(2) Headed By Husband-Wife	Families(2) Headed By Other Male Head	Families(2) Headed By Female Head
Lincoln							
Total	7,958	4.8	12.2	6,607	84.4	2.6	13.0
Negro	2,022	7.9	13.1	1,598	66.0	4.8	29.2
Non-Negro	5,936	3.8	11.8	5,009	90.2	1.9	7.9
Lowndes							
Total	14,084	5.1	11.0	11,817	82.0	3.4	14.6
Negro	4,094	8.2	12.7	3,239	62.3	6.6	31.0
Non-Negro	9,990	3.8	10.3	8,578	89.4	2.2	8.4
Madison							
Total	7,593	5.4	10.1	6,423	78.6	3.9	17.5
Negro	4,018	6.5	9.4	3,379	68.7	5.4	25.9
Non-Negro	3,575	4.1	10.8	3,044	89.6	2.3	8.1
Marion							
Total	6,704	4.4	11.6	5,626	84.8	2.7	12.5
Negro	1,723	6.5	13.1	1,385	73.4	3.8	22.9
Non-Negro	4,981	3.7	11.1	4,241	88.5	2.4	9.0
Marshall							
Total	5,806	4.7	8.8	5,022	81.6	4.1	14.2
Negro	2,951	5.0	6.8	2,604	74.1	5.4	20.4
Non-Negro	2,855	4.4	10.9	2,418	89.7	2.8	7.5
Monroe							
Total	10,316	4.5	11.2	8,696	83.9	3.4	12.7
Negro	2,582	8.1	12.0	2,063	68.1	5.9	26.0
Non-Negro	7,734	3.3	11.0	6,633	88.8	2.6	8.6
Montgomery							
Total	3,858	5.6	12.0	3,181	83.2	3.7	13.1
Negro	1,391	7.3	11.1	1,135	71.3	5.5	23.3
Non-Negro	2,467	4.6	12.5	2,046	89.7	2.7	7.5
Neshoba							
Total	6,362	3.9	10.2	5,465	86.4	3.1	10.5
Negro	1,008	5.2	10.2	853	73.7	4.2	22.0
Non-Negro	5,354	3.7	10.2	4,612	88.8	2.8	8.4
Newton							
Total	5,853	4.8	11.0	4,927	84.3	3.6	12.1
Negro	1,352	7.2	10.9	1,107	69.7	6.0	24.2
Non-Negro	4,501	4.0	11.1	3,820	88.5	2.9	8.6
Noxubee							
Total	3,739	5.9	11.7	3,084	78.0	4.3	17.8
Negro	2,084	6.6	10.6	1,725	69.3	5.9	24.8
Non-Negro	1,655	5.0	12.9	1,359	89.0	2.2	8.8
Oktibbeha							
Total	7,544	8.3	9.2	6,221	84.3	2.7	13.0
Negro	2,266	6.3	10.5	1,886	67.3	4.9	27.8
Non-Negro	5,278	9.2	8.7	4,335	91.7	1.7	6.6
Panola							
Total	7,288	5.6	9.9	6,160	82.1	3.8	14.1
Negro	3,023	7.3	8.6	2,540	72.7	5.7	21.6
Non-Negro	4,265	4.3	10.8	3,620	88.8	2.5	8.8
Pearl River							
Total	8,087	5.1	9.7	6,897	86.8	2.9	10.3
Negro	1,284	9.4	12.0	1,009	70.9	4.9	24.3
Non-Negro	6,803	4.2	9.2	5,888	89.6	2.6	7.9
Perry							
Total	2,603	5.3	10.0	2,203	84.3	3.4	12.3
Negro	580	8.6	12.1	460	72.4	5.2	22.4
Non-Negro	2,023	4.4	9.4	1,743	87.4	3.0	9.6

able 12.-(continued)

Area and Race	Household(1) Total	Household(1) Headed By Primary Individual Male	Household(1) Headed By Primary Individual Female	Families(2) Total	Families(2) Headed By Husband-Wife	Families(2) Headed By Other Male Head	Families(2) Headed By Female Head
ke							
Total	9,699	5.3	14.6	7,771	81.2	3.3	15.5
Negro	3,478	6.9	12.5	2,803	69.2	4.7	26.0
Non-Negro	6,221	4.4	15.8	4,968	87.9	2.5	9.6
ntotoc							
Total	5,534	3.8	11.0	4,712	88.0	2.8	9.2
Negro	751	7.2	8.7	632	77.7	4.8	17.6
Non-Negro	4,783	3.3	11.4	4,080	89.6	2.5	7.8
entiss							
Total	6,330	3.7	10.7	5,420	87.3	2.2	10.5
Negro	550	6.0	11.6	453	72.8	4.6	22.5
Non-Negro	5,780	3.5	10.6	4,967	88.6	2.0	9.4
itman							
Total	4,192	6.5	10.7	3,471	80.5	3.8	15.8
Negro	2,081	9.4	12.0	1,635	72.5	5.0	22.6
Non-Negro	2,111	3.6	9.5	1,836	87.6	2.7	9.7
nkin							
Total	11,166	4.2	6.5	9,973	88.0	2.8	9.2
Negro	2,338	7.4	7.4	1,992	75.4	5.2	19.5
Non-Negro	8,828	3.3	6.3	7,981	91.2	2.2	6.6
ott							
Total	6,146	3.9	9.7	5,309	86.2	3.1	10.7
Negro	1,697	5.4	8.5	1,461	75.9	5.2	18.9
Non-Negro	4,449	3.3	10.2	3,848	90.1	2.3	7.6
arkey							
Total	2,276	7.4	10.4	1,870	80.9	3.7	15.4
Negro	1,253	9.3	10.8	1,001	72.4	4.9	22.7
Non-Negro	1,023	5.1	10.0	869	90.7	2.3	7.0
Snpson							
Total	5,831	5.0	10.4	4,933	86.5	3.3	10.2
Negro	1,456	7.4	9.8	1,206	75.3	4.6	20.1
Non-Negro	4,375	4.2	10.6	3,727	90.2	2.8	7.0
ith							
Total	4,040	4.6	7.7	3,544	88.0	3.2	8.8
Negro	600	4.5	4.2	548	79.9	5.3	14.8
Non-Negro	3,440	4.6	8.3	2,996	89.5	2.8	7.7
ne							
Total	2,258	5.0	10.5	1,909	86.3	3.6	10.2
Negro	437	8.0	13.5	343	70.6	6.7	22.7
Non-Negro	1,821	4.2	9.8	1,566	89.7	2.9	7.4
nflower							
Total	9,222	6.1	11.6	7,590	79.5	4.6	15.9
Negro	5,018	8.2	11.9	4,009	70.1	6.6	23.4
Non-Negro	4,204	3.5	11.3	3,581	90.1	2.3	7.6
llahatchie							
Total	5,223	7.6	12.0	4,200	80.3	4.2	15.6
Negro	2,663	10.8	11.4	2,070	70.9	5.8	23.2
Non-Negro	2,560	4.3	12.5	2,130	89.3	2.5	8.1
e							
Total	4,810	4.6	9.8	4,118	80.5	3.3	12.1
Negro	1,795	5.6	8.5	1,542	74.6	5.2	20.2
Non-Negro	3,015	4.0	10.5	2,576	90.5	2.2	7.3
pah							
Total	4,881	4.0	9.0	4,249	88.7	3.0	8.3
Negro	625	5.3	7.4	546	76.9	6.8	16.3
Non-Negro	4,256	3.8	9.2	3,703	90.4	2.5	7.2

Table 12.-(continued)

Area and Race	Household(1)			Families(2)			
	Total	Headed By Primary Individual		Total	Headed By		
		Male	Female		Husband-Wife	Other Male Head	Female Head
Tishomingo							
Total	4,895	4.2	9.2	4,240	87.8	2.8	9.4
Negro	179	8.4	6.2	153	70.6	6.5	22.9
Non-Negro	4,716	4.0	9.3	4,087	88.5	2.6	8.9
Tunica							
Total	3,073	8.0	13.5	2,414	78.6	5.3	16.2
Negro	2,016	9.3	13.7	1,553	72.4	6.6	20.9
Non-Negro	1,057	5.5	13.1	861	89.7	2.8	7.6
Union							
Total	6,109	3.6	11.1	5,212	88.5	2.7	8.8
Negro	775	6.7	11.9	631	72.6	5.4	22.0
Non-Negro	5,334	3.1	11.0	4,581	90.7	2.4	7.0
Walthall							
Total	3,586	3.9	10.3	3,076	85.4	3.1	11.5
Negro	1,119	5.1	8.1	971	74.7	3.7	21.6
Non-Negro	2,467	3.4	11.3	2,105	90.4	2.8	6.8
Warren							
Total	13,559	6.8	13.9	10,758	81.4	3.5	15.2
Negro	5,335	10.6	18.4	3,790	66.0	5.4	28.6
Non-Negro	8,224	4.3	11.0	6,968	89.7	2.4	7.8
Washington							
Total	19,432	6.1	12.4	15,833	77.8	3.9	18.4
Negro	9,640	8.6	14.7	7,399	64.9	5.7	29.4
Non-Negro	9,792	3.7	10.2	8,434	89.1	2.3	8.6
Wayne							
Total	4,735	4.5	10.3	4,035	82.9	4.3	12.8
Negro	1,278	4.6	10.6	1,084	68.1	6.8	25.1
Non-Negro	3,457	4.5	10.2	2,951	88.3	3.4	8.3
Webster							
Total	3,116	4.1	10.6	2,658	88.4	2.9	8.7
Negro	545	7.2	10.8	447	76.5	4.5	19.0
Non-Negro	2,571	3.5	10.5	2,211	90.8	2.6	6.6
Wilkinson							
Total	3,065	7.4	11.6	2,482	76.3	6.0	17.8
Negro	1,852	8.3	10.5	1,503	69.9	7.6	22.5
Non-Negro	1,213	6.0	13.3	979	86.0	3.5	10.5
Winston							
Total	5,450	4.3	10.1	4,668	85.3	3.4	11.4
Negro	1,708	6.3	8.8	1,450	74.9	5.2	19.9
Non-Negro	3,742	3.3	10.7	3,218	89.9	2.6	7.5
Yalobusha							
Total	3,626	5.6	13.4	2,934	82.7	3.1	14.2
Negro	1,105	6.6	10.1	920	71.3	5.3	23.4
Non-Negro	2,521	5.2	14.9	2,014	87.9	2.0	10.0
Yazoo							
Total	7,739	6.2	12.1	6,320	79.0	4.3	16.7
Negro	3,685	8.7	12.8	2,892	65.3	6.9	27.8
Non-Negro	4,054	4.0	11.4	3,428	90.5	2.2	7.4

Source: U.S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Second Count, Tab 9; 1970 Census of Population Report PC(1)-D1, Tables 204 and 284; Reports PC(1)-C2, PC(1)-C19, PC(1)-C26, and PC(1)-C44 (Washington, D.C.: USGPO), Tables 48.

TABLE 13.-MARITAL STATUS OF THE POPULATION 14 YEARS OLD AND OLDER, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI COUNTIES, 1970.

Area and Race	Percent					Area and Race	Percent				
	Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married		Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married
ited States						Choctaw					
otal	61.5	7.8	3.4	1.9	25.4	Total	62.6	9.9	1.8	2.2	23.5
egro	46.9	9.2	4.4	7.6	31.9	Negro	46.2	10.6	1.9	6.4	24.9
on-Negro	63.1	7.7	3.3	1.3	24.6	Non-Negro	67.7	9.7	1.8	0.8	20.0
ith						Claiborne					
otal	62.2	8.1	3.3	2.2	24.3	Total	46.7	11.2	2.8	2.6	36.8
egro	47.0	10.3	3.4	6.7	32.7	Negro	39.1	11.5	2.6	3.3	43.5
on-Negro	65.4	7.6	3.3	1.3	22.5	Non-Negro	66.4	10.3	3.1	0.8	19.4
.C.(1)						Clarke					
otal	62.2	8.6	3.1	1.9	24.1	Total	61.4	10.6	2.4	2.0	23.6
egro	45.8	11.7	3.2	6.1	33.2	Negro	49.3	12.6	2.5	4.4	31.3
on-Negro	65.8	7.9	3.1	1.0	22.1	Non-Negro	67.2	9.7	2.4	0.8	19.9
sissippi						Clay					
otal	59.6	9.3	2.5	2.5	26.0	Total	56.4	10.4	2.2	2.9	28.2
egro	46.0	11.8	2.3	5.9	34.1	Negro	42.5	11.7	1.9	5.4	38.4
on-Negro	66.4	8.1	2.7	0.9	22.0	Non-Negro	68.1	9.2	2.5	0.7	19.6
ms						Coahoma					
otal	57.4	9.7	3.2	2.9	26.8	Total	51.6	12.7	2.1	5.5	28.1
egro	44.5	12.6	3.8	5.1	33.9	Negro	41.2	14.5	1.7	8.5	34.1
on-Negro	68.0	7.4	2.7	1.0	20.9	Non-Negro	67.3	10.1	2.7	1.0	19.0
orn						Copiah					
otal	66.3	9.6	2.7	1.6	19.8	Total	55.7	11.3	2.3	2.9	27.8
egro	46.4	13.7	3.7	5.5	30.7	Negro	45.7	11.7	2.2	5.3	35.1
on-Negro	68.7	9.1	2.5	1.1	18.5	Non-Negro	64.1	10.9	2.4	0.9	21.7
te						Covington					
otal	59.8	9.7	2.3	2.1	26.1	Total	62.0	9.8	2.5	1.6	24.1
egro	49.0	10.4	2.2	3.6	34.9	Negro	48.8	9.9	1.7	3.9	35.8
on-Negro	68.8	9.2	2.3	0.8	18.9	Non-Negro	67.4	9.8	2.8	0.7	19.2
la						De Soto					
otal	61.0	10.7	2.1	2.1	24.1	Total	65.3	6.3	2.1	2.5	23.8
egro	47.9	11.6	2.0	4.6	33.9	Negro	47.8	9.0	1.2	5.8	36.2
on-Negro	68.3	10.2	2.1	0.8	18.5	Non-Negro	73.6	5.0	2.6	0.9	17.9
ton						Forrest					
otal	64.2	8.5	1.5	1.5	24.4	Total	56.7	9.2	3.5	1.8	28.7
egro	52.4	7.9	1.1	2.4	36.3	Negro	45.7	13.4	4.5	5.5	30.9
on-Negro	70.7	8.8	1.7	1.0	17.9	Non-Negro	59.8	8.0	3.2	0.8	28.1
var						Franklin					
otal	50.6	11.0	1.9	4.4	32.2	Total	58.7	11.6	2.4	2.1	25.3
egro	41.2	13.6	1.4	7.2	36.6	Negro	46.0	13.3	2.5	4.8	33.4
on-Negro	62.3	7.7	2.4	1.0	26.6	Non-Negro	65.6	10.6	2.3	0.6	20.9
houn						George					
otal	64.9	9.3	2.1	1.6	22.2	Total	68.6	6.8	2.1	1.2	21.3
egro	49.3	8.3	1.9	3.9	36.6	Negro	53.3	7.9	1.9	3.6	33.2
on-Negro	69.3	9.6	2.1	0.9	18.1	Non-Negro	70.3	6.7	2.1	1.0	19.9
roll						Greene					
otal	59.0	9.8	1.7	2.0	27.5	Total	61.9	8.7	2.1	1.7	25.6
egro	48.7	11.0	1.1	3.6	35.7	Negro	47.1	13.3	2.2	6.4	31.1
on-Negro	67.5	8.8	2.3	0.7	20.7	Non-Negro	65.5	8.4	2.1	1.1	22.8
kasaw						Grenada					
otal	62.3	10.5	2.2	2.3	22.7	Total	60.2	11.3	2.3	3.0	23.3
egro	49.9	11.8	2.1	5.2	31.0	Negro	47.1	13.3	2.2	6.4	31.1
on-Negro	68.1	9.9	2.2	0.9	18.8	Non-Negro	68.5	10.0	2.4	0.8	18.3

East South Central.

Table 13.-(continued)

Area and Race	Percent					Area and Race	Percent				
	Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married		Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married
Hancock						Lamar					
Total	62.6	8.8	3.2	1.3	24.1	Total	64.6	8.7	2.2	1.1	23.4
Negro	47.9	11.0	4.5	3.6	33.0	Negro	45.9	14.6	1.2	4.9	33.4
Non-Negro	64.8	8.5	3.0	1.0	22.7	Non-Negro	67.1	7.9	2.3	0.6	22.0
Harrison						Lauderdale					
Total	59.9	6.3	3.7	1.7	28.4	Total	58.8	10.9	3.3	2.6	24.4
Negro	47.8	9.4	4.5	6.3	32.0	Negro	44.6	13.9	3.3	6.6	31.6
Non-Negro	62.0	5.8	3.5	0.9	27.8	Non-Negro	64.3	9.7	3.3	1.0	21.6
Hinds						Lawrence					
Total	58.3	8.5	3.3	2.9	27.0	Total	63.4	10.2	1.6	1.6	23.2
Negro	45.7	10.2	3.0	6.5	34.7	Negro	47.4	13.9	1.3	3.6	33.8
Non-Negro	65.2	7.5	3.5	0.9	22.8	Non-Negro	70.2	8.7	1.8	0.7	18.7
Holmes						Leake					
Total	50.2	13.4	1.8	3.9	30.7	Total	62.5	9.7	2.0	1.7	24.2
Negro	44.0	14.8	1.6	5.7	33.9	Negro	49.4	10.0	1.2	3.5	36.0
Non-Negro	60.7	11.2	2.2	0.7	25.3	Non-Negro	68.8	9.6	2.3	0.8	18.4
Humphreys						Lee					
Total	54.4	11.3	1.9	4.3	28.2	Total	66.1	8.5	2.9	2.1	20.4
Negro	44.5	12.7	1.4	6.7	34.6	Negro	48.3	11.0	3.0	6.4	31.4
Non-Negro	69.0	9.1	2.5	0.7	18.8	Non-Negro	70.3	7.9	2.9	1.1	17.8
Issaquena						Leflore					
Total	57.3	9.9	1.6	3.7	27.5	Total	53.9	11.5	2.2	4.9	27.5
Negro	47.9	11.6	0.8	5.9	33.9	Negro	43.3	13.0	1.2	8.3	34.2
Non-Negro	69.7	7.7	2.7	0.8	19.1	Non-Negro	66.2	9.9	3.2	1.0	19.7
Itawamba						Lincoln					
Total	69.6	7.4	2.0	1.1	19.9	Total	61.6	10.2	2.2	2.5	23.6
Negro	48.8	12.8	3.3	4.0	31.1	Negro	44.4	12.5	2.4	6.6	34.0
Non-Negro	70.8	7.1	1.9	0.9	19.3	Non-Negro	68.0	9.3	2.1	1.0	19.6
Jackson						Lowndes					
Total	69.1	5.2	2.7	1.6	21.4	Total	58.0	8.6	2.5	2.6	28.4
Negro	52.4	7.9	3.1	5.8	30.8	Negro	43.3	13.1	2.4	7.0	34.3
Non-Negro	72.0	4.8	2.6	0.8	19.8	Non-Negro	64.1	6.8	2.5	0.8	25.9
Jasper						Madison					
Total	60.5	10.1	2.0	2.2	25.3	Total	54.2	9.7	2.3	3.5	30.3
Negro	49.6	11.8	1.4	4.1	33.1	Negro	44.4	10.2	2.5	5.4	37.5
Non-Negro	68.3	8.9	2.3	0.7	19.7	Non-Negro	68.0	9.0	2.0	0.8	20.3
Jefferson						Marion					
Total	49.6	12.1	1.9	3.1	33.2	Total	61.8	9.8	2.5	1.6	24.3
Negro	43.9	12.3	1.8	3.8	38.1	Negro	49.3	12.2	1.8	4.0	32.7
Non-Negro	63.7	11.7	2.2	1.3	21.1	Non-Negro	66.6	8.8	2.8	0.7	21.0
Jefferson Davis						Marshall					
Total	58.7	10.2	1.8	1.9	27.5	Total	54.9	8.7	2.0	2.6	31.8
Negro	47.1	11.4	1.8	3.2	36.6	Negro	45.9	9.0	1.6	3.6	39.9
Non-Negro	68.9	9.2	1.7	0.7	19.5	Non-Negro	67.3	8.3	2.6	1.2	20.6
Jones						Monroe					
Total	61.1	9.6	2.6	2.2	24.5	Total	63.5	10.0	2.4	2.7	21.5
Negro	43.9	12.8	2.6	7.3	33.4	Negro	47.2	12.8	2.4	6.9	30.7
Non-Negro	66.0	8.7	2.6	0.8	22.0	Non-Negro	69.6	8.9	2.4	1.1	18.1
Kemper						Montgomery					
Total	55.4	10.6	1.5	1.8	30.7	Total	60.3	11.0	2.0	2.2	24.6
Negro	48.8	10.4	1.4	3.4	36.0	Negro	47.1	12.0	1.8	4.4	34.6
Non-Negro	61.7	10.8	1.6	0.2	25.6	Non-Negro	69.2	10.2	2.2	0.6	17.8
Lafayette						Neshoba					
Total	52.2	7.1	1.6	1.2	37.9	Total	65.4	8.9	2.4	1.5	21.9
Negro	49.2	10.3	2.0	3.6	34.9	Negro	52.3	9.9	2.3	4.4	31.2
Non-Negro	53.1	6.1	1.5	0.5	38.8	Non-Negro	68.1	8.7	2.4	0.9	20.0

Table 13.-(continued)

Area and Race	Percent					Area and Race	Percent				
	Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married		Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married
wton						Smith					
Total	61.2	10.0	2.1	1.6	25.2	Total	66.1	8.0	1.8	1.2	23.0
Negro	49.9	12.1	2.5	4.2	31.3	Negro	54.3	5.8	1.4	3.2	35.3
Non-Negro	64.7	9.3	2.0	0.8	23.2	Non-Negro	68.6	8.5	1.9	0.7	20.3
xubee						Stone					
Total	53.6	11.1	1.5	3.6	30.2	Total	59.8	8.6	2.5	1.2	27.9
Negro	44.8	11.7	1.3	5.5	36.7	Negro	47.8	11.1	3.1	3.4	34.6
Non-Negro	67.3	10.2	1.8	0.7	20.0	Non-Negro	62.7	8.0	2.4	0.7	26.3
tibbeha						Sunflower					
Total	52.3	6.7	1.6	1.9	37.5	Total	54.0	10.6	2.0	4.2	29.2
Negro	46.5	11.0	2.0	5.8	34.8	Negro	45.8	12.0	1.2	6.6	34.4
Non-Negro	54.7	4.9	1.4	0.4	38.6	Non-Negro	64.8	8.8	3.0	1.1	22.2
ola						Tallahatchie					
Total	58.1	10.3	1.9	2.7	27.0	Total	55.9	11.2	1.5	4.5	26.9
Negro	47.0	11.4	1.4	4.8	35.5	Negro	45.9	12.2	1.1	7.6	33.2
Non-Negro	67.6	9.4	2.3	0.9	19.8	Non-Negro	67.6	10.0	2.1	0.9	19.4
rl River						Tate					
Total	64.4	7.9	2.7	1.7	23.3	Total	57.2	8.7	1.6	2.6	29.9
Negro	47.9	11.7	3.3	5.8	31.3	Negro	47.1	9.9	1.0	5.2	36.8
Non-Negro	67.7	7.1	2.6	0.9	21.7	Non-Negro	64.4	7.8	2.0	0.7	25.0
ry						Tippah					
Total	62.5	9.2	2.4	1.6	24.3	Total	66.8	8.5	2.0	1.0	21.7
Negro	50.2	13.1	1.7	3.3	31.8	Negro	53.9	9.6	1.9	3.8	30.8
Non-Negro	66.3	8.0	2.6	1.1	22.0	Non-Negro	69.0	8.3	2.0	0.6	20.2
ie						Tishomingo					
Total	57.7	11.3	2.8	2.5	25.7	Total	67.8	8.8	2.3	1.0	20.1
Negro	46.8	11.4	3.0	5.3	33.5	Negro	48.8	12.4	2.4	3.5	33.0
Non-Negro	64.7	11.3	2.6	0.7	20.7	Non-Negro	68.6	8.7	2.3	0.9	19.5
totoc						Tunica					
Total	66.7	9.5	2.1	1.6	20.1	Total	53.0	12.2	1.4	5.5	27.9
Negro	52.2	10.3	2.0	4.3	31.1	Negro	46.8	13.4	0.9	7.4	31.5
Non-Negro	69.4	9.4	2.2	1.1	18.0	Non-Negro	66.0	9.8	2.3	1.5	20.5
ntiss						Union					
Total	66.2	9.4	2.6	1.2	20.7	Total	67.3	9.4	1.6	1.3	20.3
Negro	49.1	11.3	2.7	3.7	33.2	Negro	51.6	11.6	2.7	4.3	29.9
Non-Negro	68.0	9.2	2.6	0.9	19.3	Non-Negro	69.9	9.1	1.5	0.8	18.8
tman						Walthall					
Total	57.1	10.6	1.9	3.7	26.6	Total	62.6	9.4	1.8	1.8	24.5
Negro	47.5	12.5	1.2	6.3	32.6	Negro	49.6	9.8	1.7	3.6	35.3
Non-Negro	67.7	8.6	2.7	1.0	20.1	Non-Negro	69.9	9.2	1.8	0.8	18.4
kin						Warren					
Total	62.1	6.9	3.1	3.2	24.7	Total	58.5	11.2	3.1	2.9	24.2
Negro	44.5	8.7	3.0	8.0	35.8	Negro	44.6	15.5	3.7	6.2	30.0
Non-Negro	68.7	6.2	3.2	1.4	20.5	Non-Negro	67.4	8.5	2.8	0.9	20.5
t						Washington					
Total	64.2	9.0	1.9	2.2	22.8	Total	55.6	10.8	2.7	4.5	26.4
Negro	53.2	9.7	1.3	5.2	30.6	Negro	44.0	13.6	2.3	7.9	32.2
Non-Negro	69.0	8.7	2.2	0.9	19.3	Non-Negro	67.6	7.8	3.2	1.0	20.4
key						Wayne					
Total	55.0	10.9	1.5	3.1	29.4	Total	61.2	9.6	2.4	1.8	25.0
Negro	45.2	12.1	1.2	4.8	36.7	Negro	47.8	11.5	2.1	4.2	34.5
Non-Negro	69.2	9.2	2.0	0.7	18.9	Non-Negro	66.8	8.8	2.6	0.8	21.1
ipson						Webster					
Total	63.7	9.5	2.3	1.7	22.8	Total	65.5	9.9	1.6	1.2	21.8
Negro	50.3	10.5	2.2	4.2	32.8	Negro	50.1	11.5	1.3	2.9	33.2
Non-Negro	69.0	9.2	2.3	0.7	18.8	Non-Negro	69.2	9.5	1.7	0.5	19.1

Table 13.-(continued)

Area and Race	Percent					Area and Race	Percent				
	Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Married		Now Married	Wid-owed	Di-vorced	Sepa-rated	Never Marrie
Wilkinson						Yalobusha					
Total	53.1	10.7	2.6	2.4	31.1	Total	58.9	11.8	2.1	2.4	24.7
Negro	46.6	10.8	2.5	3.5	36.6	Negro	46.3	11.5	1.3	4.8	36.1
Non-Negro	65.1	10.7	2.8	0.5	21.0	Non-Negro	65.9	12.0	2.5	1.2	18.5
Winston						Yazoo					
Total	63.3	9.1	1.8	1.8	24.1	Total	55.7	11.6	1.9	3.8	27.0
Negro	51.3	9.6	1.8	3.8	33.6	Negro	43.9	14.2	1.9	6.9	33.1
Non-Negro	69.8	8.8	1.8	0.7	19.0	Non-Negro	67.1	9.2	1.9	0.9	20.9

Source: U.S. Bureau of the Census, Summary Tape of 1970, Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), First Count, Tab 21; 1970 Census of Population, Report Pc(1)-B1, Tables 54 and 58, Reports PC(1)-B2, PC(1)-B19, PC(1)-B26, PC(1)-B44 (Washington, D.C.: USGPO), Tables 22.

TABLE 14.-HOUSEHOLD SIZE AND NUMBER OF CHILDREN PER EVER-MARRIED FEMALE, BY RACE, UNITED STATES, SOUTH, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female				Fertility Ratio(1)
		Aged 15-44		Aged 35-44		
		Under Age 5	Ever Born	Under Age 5	Ever Born	
United States						
Total	3.10	.54	2.42	.21	3.13	.40
White	3.00	.37	2.28	.20	3.05	.39
Negro	3.50	.58	2.98	.26	3.82	.49
South						
Total	3.50	.51	2.35	.19	3.16	.41
White	3.00	.49	2.17	.17	2.93	.38
Negro	3.70	.61	3.24	.28	4.26	.51
Mississippi						
Total	3.39	.57	2.73	.25	3.74	.47
White	3.08	.49	2.20	.17	2.95	.38
Negro	4.08	.78	4.07	.44	5.57	.63
Adams						
Total	3.36	.52	2.81	.20	3.63	.43
White	3.13	.44	2.25	.16	2.97	.36
Negro	3.65	.64	3.66	.27	4.65	.51
Alcorn						
Total	3.07	.50	2.19	.17	2.95	.41
White	3.00	.49	2.09	.16	2.81	.39
Negro	3.66	.57	3.28	.32	4.65	.54
Amite						
Total	3.56	.70	3.34	.35	4.74	.55
White	2.94	.58	2.36	.15	3.54	.39
Negro	4.47	.87	4.74	.59	6.12	.70
Attala						
Total	3.27	.57	2.97	.23	3.95	.50
White	2.87	.45	2.20	.12	2.88	.38
Negro	4.09	.82	4.56	.41	5.74	.68
Benton						
Total	3.70	.70	3.57	.38	5.15	.55
White	2.99	.56	2.51	.15	3.44	.43
Negro	5.45	.96	5.54	.73	7.85	.74
Bolivar						
Total	3.77	.68	3.44	.34	5.03	.59
White	3.10	.45	2.11	.13	3.01	.34
Negro	4.31	.92	4.83	.52	6.72	.79
Calhoun						
Total	3.22	.51	2.85	.21	3.88	.47
White	2.89	.48	2.30	.15	2.97	.42
Negro	4.77	.61	4.72	.39	6.46	.60
Carroll						
Total	3.63	.78	3.22	.31	3.92	.52
White	3.04	.60	2.16	.13	2.44	.39
Negro	4.48	1.04	4.80	.52	5.80	.64
Chickasaw						
Total	3.38	.55	2.68	.30	3.81	.49
White	3.01	.46	2.33	.14	3.10	.39
Negro	4.32	.77	3.54	.59	5.19	.67
Choctaw						
Total	3.27	.52	2.88	.28	3.79	.47
White	2.99	.47	2.46	.18	3.34	.39
Negro	4.33	.69	4.40	.64	5.43	.68

(1) Number of children under 5 per female aged 15-44.

Table 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female				Fertility Ratio(1)
		Aged 15-44		Aged 35-44		
		Under Age 5	Ever Born	Under Age 5	Ever Born	
Claiborne						
Total	3.44	.63	3.29	.29	4.44	.38
White	2.85	.38	2.07	.24	2.86	.38
Negro	3.74	.75	3.90	.32	5.31	.38
Clarke						
Total	3.28	.54	2.77	.20	3.84	.47
White	3.00	.46	2.31	.12	3.02	.38
Negro	3.94	.72	3.91	.36	5.43	.64
Clay						
Total	3.46	.57	2.80	.25	3.97	.45
White	3.01	.46	2.03	.13	2.57	.36
Negro	4.10	.75	3.97	.39	5.75	.54
Coahoma						
Total	3.57	.73	3.48	.36	4.77	.59
White	3.04	.51	2.22	.15	3.06	.39
Negro	3.94	.94	4.71	.55	6.32	.71
Copiah						
Total	3.42	.62	3.10	.28	4.19	.45
White	2.89	.55	2.31	.19	2.99	.34
Negro	4.14	.72	4.16	.43	6.14	.56
Covington						
Total	3.51	.53	3.00	.21	4.05	.53
White	3.16	.46	2.38	.16	3.12	.48
Negro	4.51	.71	4.66	.34	6.54	.64
DeSoto						
Total	3.85	.66	2.82	.30	3.92	.54
White	3.48	.54	2.28	.16	2.98	.45
Negro	4.78	1.08	4.68	.71	6.74	.76
Forrest						
Total	3.09	.51	2.29	.21	3.16	.37
White	2.95	.47	2.03	.17	2.82	.32
Negro	3.62	.66	3.28	.36	4.30	.53
Franklin						
Total	3.16	.48	2.85	.21	3.75	.40
White	2.87	.45	2.25	.16	3.00	.31
Negro	3.76	.54	4.30	.31	5.16	.53
George						
Total	3.47	.62	2.77	.21	3.95	.51
White	3.37	.59	2.61	.14	3.62	.50
Negro	4.46	.89	4.24	.67	5.92	.60
Greene						
Total	3.49	.74	2.97	.32	4.41	.51
White	3.34	.69	2.64	.30	3.73	.48
Negro	4.15	1.05	4.72	.46	8.67	.59
Grenada						
Total	3.33	.59	2.70	.29	3.78	.49
White	2.97	.50	2.11	.17	2.83	.38
Negro	3.94	.76	3.80	.52	5.67	.66
Hancock						
Total	3.34	.67	2.74	.21	3.63	.52
White	3.27	.67	2.73	.19	3.59	.50
Negro	3.83	.68	2.80	.34	3.90	.63
Harrison						
Total	3.30	.52	2.34	.23	3.35	.43
White	3.21	.49	2.17	.21	3.16	.40
Negro	3.73	.71	3.40	.35	4.47	.61

Table 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female				Fertility Ratio(1)
		Aged 15-44		Aged 35-44		
		Under Age 5	Ever Born	Under Age 5	Ever Born	
Hinds						
Total	3.30	.50	2.46	.19	3.22	.40
White	2.97	.42	1.96	.14	2.59	.33
Negro	3.99	.68	3.48	.31	4.65	.52
Holmes						
Total	3.54	.71	3.54	.39	4.72	.56
White	2.81	.42	2.09	.13	3.11	.33
Negro	4.00	.89	4.46	.54	5.64	.68
Humphreys						
Total	3.77	.71	3.87	.35	5.74	.64
White	3.07	.54	2.52	.19	3.82	.44
Negro	4.29	.86	5.06	.45	6.94	.77
Issaquena						
Total	3.76	.59	3.31	.31	5.97	.70
White	3.18	.44	1.82	.09	3.36	.48
Negro	4.26	.75	4.98	.48	7.95	.87
Itawamba						
Total	3.21	.50	2.12	.17	2.81	.42
White	3.19	.50	2.12	.17	2.82	.42
Negro	3.58	.60	2.03	.00	2.00	.46
Jackson						
Total	3.56	.63	2.53	.26	3.51	.52
White	3.46	.61	2.38	.24	3.23	.50
Negro	4.17	.78	3.55	.39	5.20	.64
Jasper						
Total	3.48	.56	2.74	.21	3.65	.48
White	2.97	.49	2.11	.15	2.77	.36
Negro	4.36	.67	3.77	.31	5.08	.62
Jefferson						
Total	3.83	.80	4.02	.45	5.34	.53
White	2.88	.63	2.10	.16	2.68	.36
Negro	4.29	.88	5.01	.59	6.62	.58
Jeff Davis						
Total	3.53	.78	3.10	.43	3.93	.51
White	3.10	.65	2.60	.24	2.93	.42
Negro	4.11	1.00	3.88	.73	5.57	.60
Jones						
Total	3.19	.48	2.40	.13	3.13	.40
White	3.04	.45	2.13	.10	2.73	.36
Negro	3.77	.60	3.54	.26	4.70	.51
Kemper						
Total	3.56	.66	3.37	.46	4.17	.52
White	2.76	.33	2.28	.23	2.58	.29
Negro	4.53	1.02	4.42	.79	6.03	.70
Lafayette						
Total	3.21	.52	2.29	.25	3.69	.35
White	2.85	.42	1.75	.22	2.99	.28
Negro	4.38	.87	4.17	.33	5.44	.58
Lamar						
Total	3.37	.66	2.69	.21	3.63	.47
White	3.30	.66	2.62	.19	3.50	.45
Negro	3.92	.65	3.37	.39	4.47	.66
Lauderdale						
Total	3.07	.47	2.33	.17	3.22	.41
White	2.87	.42	1.92	.11	2.64	.35
Negro	3.60	.63	3.61	.30	4.60	.55

Table 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female Aged 15-44 Under Age 5	Aged 15-44 Ever Born	Aged 35-44 Under Age 5	Aged 35-44 Ever Born	Fertility Ratio(1)
Lawrence						
Total	3.38	.59	2.94	.20	3.77	.47
White	3.16	.51	2.60	.12	3.34	.42
Negro	3.99	.92	4.23	.48	5.36	.58
Leake						
Total	3.26	.57	2.70	.26	3.79	.42
White	2.83	.47	2.16	.13	2.78	.36
Negro	4.22	.75	3.85	.55	5.71	.49
Lee						
Total	3.18	.53	2.29	.19	2.99	.43
White	3.05	.50	2.05	.15	2.66	.40
Negro	3.81	.68	3.51	.36	4.45	.53
Leflore						
Total	3.47	.65	3.18	.32	4.42	.53
White	3.01	.49	2.11	.18	2.76	.39
Negro	3.91	.83	4.34	.46	6.03	.64
Lincoln						
Total	3.26	.60	2.69	.25	3.46	.45
White	3.03	.48	2.31	.15	2.94	.40
Negro	3.95	.98	3.86	.62	5.24	.58
Lowndes						
Total	3.33	.53	2.41	.26	3.38	.40
White	3.09	.46	1.97	.17	2.75	.31
Negro	3.92	.74	3.81	.53	5.08	.63
Madison						
Total	3.82	.61	3.25	.29	4.32	.52
White	3.11	.41	2.24	.18	3.11	.37
Negro	4.46	.78	4.14	.40	5.53	.61
Marion						
Total	3.36	.58	2.68	.24	3.61	.46
White	3.11	.52	2.47	.19	3.30	.40
Negro	4.06	.74	3.33	.42	4.67	.61
Marshall						
Total	4.05	.70	3.43	.49	4.90	.51
White	3.18	.51	2.47	.28	3.36	.41
Negro	4.89	.88	4.37	.68	6.34	.57
Monroe						
Total	3.29	.58	2.60	.19	3.25	.49
White	3.05	.49	2.21	.16	2.83	.41
Negro	4.00	.85	3.83	.29	4.72	.67
Montgomery						
Total	3.33	.59	2.96	.21	3.61	.48
White	2.87	.50	2.31	.11	2.81	.38
Negro	4.15	.77	4.21	.36	4.68	.59
Neshoba						
Total	3.25	.55	2.62	.26	3.57	.46
White	2.96	.49	2.31	.18	3.05	.39
Negro	4.04	.79	4.09	.62	6.13	.62
Newton						
Total	3.15	.50	2.55	.17	3.31	.39
White	2.90	.43	2.24	.10	2.83	.31
Negro	3.83	.75	3.64	.42	5.03	.58
Noxubee						
Total	3.82	.68	3.80	.38	5.15	.56
White	2.94	.44	2.28	.09	3.17	.35
Negro	4.50	.88	5.11	.58	6.57	.67

Table 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female				Fertility Ratio(1)
		Aged 15-44		Aged 35-44		
		Under Age 5	Ever Born	Under Age 5	Ever Born	
Oktibbeha						
Total	3.37	.51	2.29	.32	3.56	.38
White	2.94	.42	1.63	.22	2.56	.30
Negro	4.38	.74	4.00	.52	5.49	.57
Panola						
Total	3.67	.61	3.22	.31	4.52	.54
White	3.05	.43	2.40	.16	3.11	.38
Negro	4.53	.87	4.43	.52	6.39	.71
Pearl River						
Total	3.39	.57	2.60	.17	3.23	.44
White	3.28	.53	2.37	.12	2.92	.41
Negro	3.92	.78	3.94	.41	4.79	.57
Perry						
Total	3.47	.59	2.90	.27	3.98	.50
White	3.30	.53	2.52	.17	3.59	.42
Negro	4.08	.88	4.73	.61	5.34	.75
Pike						
Total	3.23	.54	2.96	.23	3.73	.45
White	2.84	.45	2.34	.13	2.87	.35
Negro	3.95	.70	4.06	.40	5.25	.57
Pontotoc						
Total	3.12	.55	2.51	.19	3.36	.46
White	2.96	.52	2.26	.17	2.91	.43
Negro	4.12	.76	4.26	.33	5.71	.60
Prentiss						
Total	3.15	.56	2.37	.26	3.18	.45
White	3.04	.54	2.19	.27	2.94	.42
Negro	4.27	.65	3.96	.19	5.54	.66
Quitman						
Total	3.74	.83	3.67	.43	5.48	.67
White	3.19	.63	2.38	.26	3.55	.45
Negro	4.28	1.10	5.33	.64	7.78	.86
Rankin						
Total	3.51	.50	2.40	.19	3.25	.43
White	3.31	.48	2.09	.15	2.83	.41
Negro	4.28	.63	3.77	.33	4.89	.51
Scott						
Total	3.47	.51	2.81	.22	3.82	.45
White	3.21	.49	2.52	.20	3.29	.41
Negro	4.14	.56	3.57	.30	5.26	.54
Sharkey						
Total	3.92	.80	3.53	.40	4.90	.63
White	3.08	.70	2.19	.13	2.74	.41
Negro	4.60	.91	4.71	.57	6.39	.76
Simpson						
Total	3.37	.57	2.78	.22	3.82	.46
White	3.09	.48	2.36	.11	3.00	.39
Negro	4.20	.85	4.02	.52	5.94	.62
Smith						
Total	3.36	.52	2.58	.29	3.49	.45
White	3.10	.48	2.23	.21	2.89	.38
Negro	4.81	.70	4.38	.64	6.25	.72
Stone						
Total	3.39	.57	2.53	.19	3.57	.44
White	3.19	.53	2.26	.14	3.12	.37
Negro	4.20	.70	3.54	.36	4.82	.68

Table 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female				Fertili Ratio(
		Aged 15-44		Aged 35-44		
		Under Age 5	Ever Born	Under Age 5	Ever Born	
Sunflower						
Total	3.81	.72	3.63	.42	5.13	.63
White	3.06	.42	2.18	.17	2.93	.35
Negro	4.43	.98	4.89	.64	6.99	.81
Tallahatchie						
Total	3.66	.76	3.93	.45	5.71	.65
White	3.00	.54	2.54	.16	3.51	.38
Negro	4.30	1.00	5.38	.73	7.81	.83
Tate						
Total	3.71	.72	3.19	.39	4.86	.51
White	3.05	.57	2.19	.13	3.02	.36
Negro	4.83	.96	4.87	.76	7.54	.70
Tippah						
Total	3.20	.63	2.49	.27	3.31	.43
White	3.07	.60	2.25	.22	2.93	.40
Negro	4.13	.89	4.07	.50	5.31	.60
Tishomingo						
Total	3.04	.47	2.11	.13	2.73	.37
White	3.02	.47	2.09	.13	2.71	.37
Negro	3.70	.39	2.65	.00	3.80	.45
Tunica						
Total	3.83	.82	3.97	.49	5.51	.71
White	3.05	.42	2.38	.07	3.36	.41
Negro	4.24	1.12	5.12	.68	6.53	.91
Union						
Total	3.11	.58	2.38	.29	3.32	.4
White	3.01	.53	2.18	.21	3.00	.4
Negro	3.78	.90	3.68	.82	5.46	.7
Walthall						
Total	3.47	.60	2.94	.31	4.04	.41
White	2.98	.46	2.33	.14	3.06	.31
Negro	4.54	.87	4.24	.60	5.72	.61
Warren						
Total	3.28	.58	2.74	.22	3.85	.4
White	3.19	.57	2.22	.17	3.03	.42
Negro	3.42	.61	3.88	.30	5.47	.56
Washington						
Total	3.61	.66	3.19	.29	4.27	.55
White	3.25	.55	2.42	.21	3.14	.42
Negro	3.96	.80	4.20	.39	5.64	.73
Wayne						
Total	3.49	.54	3.02	.24	4.30	.49
White	3.22	.47	2.43	.14	3.15	.40
Negro	4.22	.76	4.85	.49	7.34	.65
Webster						
Total	3.19	.53	2.69	.25	3.73	.
White	2.99	.46	2.35	.15	3.19	.
Negro	4.13	.88	4.35	.70	6.38	.
Wilkinson						
Total	3.61	.48	3.43	.22	4.67	.
White	2.96	.36	2.44	.16	2.99	.
Negro	4.04	.55	4.14	.25	5.80	.
Winston						
Total	3.37	.54	2.83	.23	3.80	.
White	2.98	.43	2.15	.16	2.79	.
Negro	4.19	.78	4.38	.36	5.76	.

able 14.-(continued)

Area and Race	Average Persons Per Household	Number of Children Per Ever-Married Female Aged 15-44 Under Age 5	Aged 15-44 Ever Born	Aged 35-44 Under Age 5	Aged 35-44 Ever Born	Fertility Ratio(1)
alobusha						
Total	3.27	.53	2.82	.26	3.96	.48
White	2.79	.46	2.15	.18	2.95	.36
Negro	4.33	.67	4.04	.43	6.27	.64
azoo						
Total	3.51	.63	3.19	.33	4.19	.53
White	3.12	.46	2.36	.16	3.03	.38
Negro	3.94	.88	4.44	.61	6.03	.69

ource: U.S. Bureau of the Census, 1970 Census of Population, Report PC(1)-C1, Tables 85,89, 130, and 31; Report PC(1)-D1, Tables 191, 269, and 271; Report PC(1)-D26 (Washington, D.C.: USGPO), Table 140; ummary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing enter), Second Count, Tab 44.

TABLE 15.-SCHOOL ENROLLMENT OF PERSONS AGED 3-34, BY AGE GROUP AND RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent Enrollment of Persons in Stated Ages 3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
nited States										
Total	54.3	12.5	72.4	97.3	95.9	89.3	56.6	30.7	14.6	6.1
White	54.2	12.1	73.1	97.5	96.3	90.1	57.7	32.2	15.2	6.2
Negro	54.4	14.4	67.8	95.8	93.7	84.3	47.7	18.2	8.8	4.9
outh										
Total	51.5	11.6	59.6	96.3	94.1	85.1	52.4	26.2	11.9	4.8
White	50.7	11.3	60.1	96.6	94.6	85.8	53.5	27.9	12.7	5.0
Negro	54.8	12.3	58.0	95.3	92.8	83.0	48.5	18.9	8.1	4.0
.S.C.(1)										
Total	51.0	9.1	54.2	95.7	95.6	83.8	49.5	25.3	11.6	4.1
White	49.3	7.7	53.4	95.8	95.6	83.6	49.5	26.3	12.0	4.1
Negro	57.3	13.3	56.7	95.4	95.7	84.6	50.0	21.4	9.3	3.7
issisippi										
Total	53.8	13.2	60.4	94.7	92.3	83.3	54.6	27.4	10.6	3.6
White	49.5	8.1	57.1	94.9	91.8	84.1	55.1	28.3	11.2	3.6
Negro	60.4	18.9	64.5	94.4	92.8	82.0	53.9	25.2	9.0	3.4
dams										
Total	56.5	7.1	71.3	95.0	95.1	91.4	51.0	15.0	4.3	2.0
White	52.6	5.0	75.3	94.2	96.4	90.6	44.0	10.5	3.8	1.7
Negro	60.3	8.8	67.6	95.6	93.9	92.1	57.0	19.3	5.0	2.5
lcorn										
Total	43.5	5.3	52.4	91.4	82.6	71.9	41.0	15.7	7.6	2.0
White	41.5	5.3	52.0	89.2	78.9	71.1	42.2	13.3	5.6	1.6
Negro	57.6	5.6	55.2	99.9	99.9	77.5	33.1	35.2	21.4	5.7
mite										
Total	54.3	7.3	69.9	90.1	90.1	85.3	38.4	13.4	2.3	0.7
White	44.6	7.1	60.9	86.6	86.9	82.0	31.3	11.2	0.0	0.0
Negro	61.5	7.5	74.1	92.1	92.1	87.4	42.6	15.1	5.5	1.8

1) East South Central.

Table 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
Attala										
Total	56.2	13.3	62.9	92.4	94.0	85.4	61.3	19.6	0.0	1.2
White	50.0	11.1	61.4	91.5	89.4	89.1	53.2	16.3	0.0	0.8
Negro	62.5	15.3	63.3	92.6	98.4	81.5	69.9	23.6	0.0	1.9
Benton										
Total	54.8	8.8	67.2	92.1	96.0	86.9	46.1	16.7	2.7	0.8
White	48.0	2.7	41.5	99.8	84.7	94.4	36.7	22.0	4.3	1.2
Negro	61.7	13.8	82.6	85.9	99.9	78.6	57.7	9.9	0.0	0.0
Bolivar										
Total	63.5	44.8	72.7	95.4	94.7	87.2	62.1	42.9	24.3	4.1
White	57.5	14.9	59.1	95.1	92.2	91.2	76.3	61.8	39.1	5.1
Negro	67.0	53.3	77.7	95.5	95.6	85.3	52.1	20.5	9.0	2.8
Calhoun										
Total	53.3	4.3	62.3	90.5	89.0	85.1	55.6	9.4	7.8	0.0
White	48.5	3.4	59.4	90.2	84.2	86.0	59.6	5.5	9.8	0.0
Negro	63.4	6.3	67.2	90.9	98.1	83.3	49.7	23.2	4.2	0.0
Carroll										
Total	55.9	7.4	42.1	96.4	99.9	82.8	61.1	20.3	6.6	2.3
White	43.5	0.0	24.4	97.3	99.9	74.8	54.0	4.8	0.0	1.9
Negro	64.8	10.6	54.5	95.9	99.9	86.6	65.1	38.7	15.1	2.9
Chickasaw										
Total	49.8	11.3	41.8	96.7	94.7	81.0	35.0	10.9	2.0	1.6
White	48.3	2.7	42.3	99.3	100.0	84.8	38.7	0.0	1.9	1.0
Negro	52.2	18.7	40.9	93.3	85.5	75.8	29.7	20.4	2.2	3.0
Choctaw										
Total	53.3	6.4	33.7	98.5	87.8	83.1	59.8	18.3	11.3	5.3
White	50.7	0.0	27.6	98.2	81.1	85.9	56.7	21.0	14.8	7.0
Negro	58.4	13.6	43.6	98.9	97.5	76.7	64.2	13.5	0.0	0.0
Claiborne										
Total	68.2	17.4	69.2	97.2	99.9	94.8	79.3	65.1	33.8	5.6
White	54.4	0.0	65.5	99.3	91.0	91.1	67.8	0.0	0.0	4.4
Negro	71.6	22.6	70.5	96.7	99.9	95.6	81.0	69.3	40.3	6.2
Clarke										
Total	53.3	15.9	55.0	95.9	93.1	80.7	52.9	21.7	2.7	0.4
White	45.7	3.0	53.8	92.4	92.8	69.6	48.0	23.0	1.8	0.5
Negro	65.3	36.8	56.4	99.9	93.5	93.7	59.9	20.0	4.7	0.0
Clay										
Total	56.0	6.0	57.6	96.6	90.8	83.6	55.2	35.6	9.2	2.1
White	48.0	2.4	58.0	95.5	90.4	84.2	39.0	23.3	3.2	1.4
Negro	62.8	8.3	57.3	97.4	91.0	83.0	63.1	42.2	19.3	3.4
Coahoma										
Total	61.3	13.2	68.2	98.4	95.4	88.2	56.0	34.6	9.2	3.0
White	51.4	15.0	64.8	99.5	94.8	87.6	44.6	15.2	4.8	1.5
Negro	66.1	12.6	70.1	98.0	96.3	88.1	59.4	42.9	13.3	4.5
Copiah										
Total	57.1	11.3	57.0	93.2	91.0	84.1	64.6	24.0	8.6	2.5
White	55.4	5.3	54.9	95.7	90.8	85.7	73.7	44.0	9.2	3.4
Negro	58.4	16.2	58.1	91.6	91.1	83.0	56.2	9.6	8.1	1.3
Covington										
Total	54.3	8.2	48.6	93.7	96.9	87.9	51.5	15.1	3.1	3.1
White	48.5	1.9	39.3	92.0	95.5	81.3	54.5	11.1	4.9	2.6
Negro	64.2	22.0	59.9	96.0	98.9	98.5	47.9	22.1	0.0	4.5
De Soto										
Total	48.6	2.0	56.9	93.9	92.1	84.6	42.0	9.9	3.6	2.0
White	44.0	1.4	53.0	93.4	97.2	85.6	34.9	10.0	3.7	1.9
Negro	56.9	2.8	63.2	94.8	85.3	83.4	51.0	9.7	3.2	2.2

Table 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
Forrest										
Total	59.5	15.5	54.6	93.4	98.6	86.3	75.2	64.4	34.4	9.9
White	59.9	11.6	53.9	95.0	97.1	86.7	77.9	70.4	39.5	11.0
Negro	58.3	23.1	56.0	90.4	99.9	85.3	62.3	24.1	10.6	3.3
Franklin										
Total	60.6	35.9	39.7	98.0	99.9	91.6	54.4	5.7	6.4	2.2
White	50.7	9.4	32.9	92.4	100.8	86.7	45.0	10.8	7.7	3.2
Negro	72.5	55.9	48.4	99.9	99.9	96.1	62.3	0.0	0.0	0.0
George										
Total	45.5	2.5	44.8	87.1	84.4	77.5	43.2	8.8	0.0	3.3
White	43.8	1.7	42.3	87.2	82.6	77.0	39.3	10.1	0.0	3.5
Negro	55.8	6.8	59.6	86.7	91.9	76.9	69.6	0.0	0.0	0.0
Greene										
Total	50.1	15.0	59.7	89.3	91.4	83.4	59.7	19.9	0.0	1.3
White	47.4	7.1	48.7	91.7	94.7	75.4	53.8	25.4	0.0	0.5
Negro	58.5	36.8	83.3	82.7	83.3	99.9	76.2	0.0	0.0	5.2
Grenada										
Total	50.3	9.2	63.1	95.1	85.1	79.3	40.7	12.6	3.8	0.6
White	44.7	8.9	60.6	93.5	81.6	80.9	40.9	4.9	3.8	0.4
Negro	56.2	9.4	64.9	96.4	88.4	77.5	40.5	23.0	3.8	0.8
Hancock										
Total	51.8	7.1	49.6	98.3	95.0	72.4	51.5	14.7	8.0	4.4
White	50.9	6.0	49.3	99.0	96.0	71.2	46.2	14.1	9.3	3.9
Negro	57.0	12.1	50.8	94.6	90.6	78.9	74.4	20.6	0.0	5.0
Harrison										
Total	44.8	16.9	63.4	96.7	91.6	81.8	25.4	6.0	5.6	3.6
White	42.9	12.5	61.8	96.2	89.8	82.5	26.1	6.3	5.6	3.3
Negro	54.6	30.9	68.0	98.6	98.7	78.0	22.7	4.4	5.4	5.5
Hinds										
Total	56.2	14.0	62.4	97.0	94.5	88.4	64.0	40.2	18.7	5.9
White	53.8	16.7	67.0	96.9	94.8	94.0	65.8	37.9	18.4	5.1
Negro	59.5	11.3	57.9	97.2	94.3	81.1	62.0	42.8	19.4	7.5
Holmes										
Total	61.7	28.0	74.5	89.6	84.5	77.0	77.4	37.4	14.8	5.1
White	53.2	4.9	58.4	76.2	80.7	82.6	80.8	62.7	20.1	3.2
Negro	65.0	33.3	78.0	93.4	85.7	75.1	74.7	21.6	11.5	6.3
Humphreys										
Total	60.1	24.7	73.4	91.4	89.8	84.2	57.5	16.9	7.9	6.1
White	47.6	23.7	67.4	86.0	88.2	71.8	44.0	16.0	9.0	5.1
Negro	65.6	24.9	75.8	93.3	90.3	88.6	63.6	17.5	7.1	7.3
Issaquena										
Total	53.3	11.4	28.4	96.0	98.3	95.1	61.3	1.2	0.0	0.0
White	50.4	0.0	17.5	110.2	112.2	110.7	80.0	0.0	0.0	0.0
Negro	54.9	13.7	33.0	90.3	91.3	84.9	58.5	20.0	0.0	0.0
Itawamba										
Total	48.4	8.1	57.9	94.8	86.7	73.9	57.8	13.2	4.4	1.2
White	47.7	7.0	56.7	94.2	86.6	76.4	53.9	12.6	4.6	1.3
Negro	59.1	30.8	74.4	99.9	87.8	37.5	99.9	26.1	0.0	0.0
Jackson										
Total	49.0	16.6	69.9	95.6	95.0	83.3	45.5	10.9	5.0	3.0
White	47.5	10.5	65.7	96.0	95.1	85.5	44.8	10.0	5.2	3.0
Negro	56.6	41.0	87.6	94.1	95.0	73.2	48.7	15.0	3.8	2.6
Jasper										
Total	56.6	21.0	62.2	93.7	99.9	80.2	62.6	12.8	2.7	0.7
White	49.4	6.0	57.5	88.7	116.9	70.1	65.2	11.7	2.9	1.1
Negro	63.3	30.9	65.3	97.6	100.0	88.5	61.2	14.1	2.5	0.0

Table 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
Jefferson										
Total	67.5	14.6	72.9	96.7	99.9	96.8	80.1	36.8	9.6	3.5
White	55.7	0.0	90.3	101.0	128.0	120.8	62.2	12.1	5.4	0.0
Negro	70.4	18.8	69.3	96.1	99.9	88.3	82.6	44.9	11.8	5.1
Jeff Davis										
Total	58.5	19.1	65.1	94.7	99.6	83.3	59.2	39.5	7.5	1.6
White	49.1	2.8	54.6	92.8	95.4	77.4	55.7	10.1	5.3	1.8
Negro	66.1	31.1	72.9	96.0	99.9	87.2	60.4	64.6	9.3	1.2
Jones										
Total	54.1	16.5	54.0	95.7	91.2	86.0	55.8	26.5	8.6	4.3
White	50.3	8.9	45.5	94.9	87.5	86.8	56.5	25.6	8.5	4.3
Negro	64.4	31.9	70.3	97.2	99.7	84.6	54.0	29.9	9.4	4.2
Kemper										
Total	63.3	39.1	66.2	92.7	90.4	90.8	74.1	23.8	6.4	0.0
White	64.9	0.0	63.3	94.5	83.1	92.1	92.1	36.5	8.2	0.0
Negro	63.3	45.8	66.9	91.7	96.5	91.3	55.8	18.7	5.8	0.0
Lafayette										
Total	68.5	13.3	70.6	97.6	90.4	95.4	85.0	78.6	54.7	19.8
White	68.4	13.4	53.6	97.9	89.2	94.2	86.9	82.4	59.4	24.0
Negro	67.6	13.1	88.4	97.1	91.4	96.5	71.5	33.7	9.0	1.7
Lamar										
Total	51.3	4.3	49.8	92.3	91.8	76.7	48.1	35.4	9.6	4.9
White	49.1	4.0	47.4	92.3	90.0	77.5	49.1	29.4	10.4	4.3
Negro	64.8	6.2	67.1	92.5	99.9	73.0	42.6	73.1	0.0	10.5
Lauderdale										
Total	49.1	13.6	62.8	95.7	91.9	80.1	49.6	15.2	7.7	5.3
White	44.9	11.5	60.2	96.4	95.6	79.0	46.8	14.4	8.3	5.2
Negro	58.1	17.0	66.8	94.3	86.0	81.6	53.9	17.6	4.6	5.4
Lawrence										
Total	53.8	11.6	50.7	92.2	99.9	78.6	48.9	12.4	0.0	1.0
White	47.1	1.4	45.0	88.9	94.2	79.7	42.8	12.9	0.0	0.5
Negro	66.8	27.1	60.5	97.9	99.9	76.8	58.3	11.7	0.0	3.4
Leake										
Total	54.0	18.1	49.1	92.8	96.2	80.1	51.5	8.4	3.3	2.3
White	44.3	0.0	36.3	89.8	91.9	72.2	32.3	10.5	0.0	1.0
Negro	65.8	39.7	64.2	97.4	99.9	86.3	63.5	3.7	5.8	4.5
Lee										
Total	48.1	4.6	59.8	93.7	89.6	84.8	53.4	14.6	4.2	2.1
White	46.3	2.5	62.8	94.4	88.3	87.0	54.3	16.9	4.5	1.9
Negro	54.1	10.5	51.1	91.5	93.4	79.9	51.1	4.7	2.7	2.8
Leflore										
Total	55.6	14.5	60.2	95.3	92.1	74.9	54.4	31.9	6.1	1.7
White	46.3	9.0	55.1	95.2	87.6	76.2	44.2	13.3	1.3	0.6
Negro	61.5	17.1	62.4	96.0	94.7	74.2	57.7	40.6	10.1	3.1
Lincoln										
Total	51.5	7.2	42.6	94.2	92.2	90.6	47.3	9.8	6.7	2.3
White	50.6	5.8	42.1	95.9	95.6	90.7	52.3	11.5	6.8	3.1
Negro	53.2	9.3	43.3	91.6	85.4	90.5	38.7	6.1	6.5	0.0
Lowndes										
Total	52.8	14.7	67.6	94.7	92.5	88.0	63.8	40.1	9.6	4.4
White	51.2	15.3	70.0	93.9	91.3	89.4	71.5	46.7	11.1	5.1
Negro	56.3	13.9	63.8	95.6	94.4	85.8	43.1	17.8	3.6	2.4
Madison										
Total	57.2	14.3	71.2	93.8	93.6	86.5	43.8	24.6	9.9	2.1
White	53.0	7.5	78.7	96.7	92.0	80.2	39.1	13.0	2.7	2.9
Negro	59.2	16.4	68.5	92.5	94.5	89.1	45.2	30.0	13.9	1.3

ble 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
rion										
Total	54.4	6.5	54.1	95.2	91.9	81.7	46.9	24.2	8.1	2.3
White	54.4	7.3	47.8	99.6	96.1	85.7	45.3	30.8	8.3	2.6
Negro	54.7	5.7	64.9	87.8	84.4	73.4	49.0	11.8	7.7	1.6
rshall										
Total	59.8	9.3	68.1	96.1	88.5	87.7	58.4	40.6	9.0	3.7
White	43.0	0.0	50.0	90.1	68.4	74.2	28.9	12.4	0.0	2.3
Negro	68.1	13.2	75.7	98.8	97.8	92.2	68.9	49.6	14.8	4.4
nroe										
Total	48.9	4.0	48.3	95.3	94.2	70.9	44.2	7.0	4.0	1.5
White	46.7	4.1	50.3	96.2	98.7	73.9	43.9	9.0	4.6	1.7
Negro	53.1	3.8	44.1	93.9	87.9	65.8	44.9	3.5	1.9	0.9
ntgomery										
Total	54.8	6.9	62.6	96.6	91.2	86.6	52.4	18.3	5.1	0.4
White	48.2	3.0	58.6	99.5	87.7	90.0	43.1	24.6	4.0	0.0
Negro	61.5	9.5	66.4	94.3	93.6	83.7	56.8	12.7	7.5	1.2
shoba										
Total	52.3	5.5	47.9	96.9	94.6	85.8	46.4	11.1	4.9	1.4
White	49.8	0.0	42.2	98.1	92.9	85.6	39.1	3.4	6.4	1.5
Negro	61.2	17.9	64.8	96.9	91.1	84.2	55.5	22.2	0.0	1.8
wton										
Total	55.6	7.2	55.9	95.8	85.3	88.7	72.1	33.7	11.0	2.3
White	55.5	6.9	48.2	99.8	87.5	92.0	80.2	42.0	12.7	2.6
Negro	57.4	8.5	71.1	93.4	84.9	80.4	46.5	10.9	7.9	1.5
xubee										
Total	25.8	3.0	35.0	39.1	38.1	31.2	31.1	9.1	4.6	3.2
White	53.8	0.0	65.6	100.6	101.5	72.8	75.2	19.8	5.2	6.3
Negro	14.2	3.7	25.3	16.6	23.3	19.9	13.6	4.4	4.1	0.9
tibbeha										
Total	66.1	9.4	55.6	98.6	95.8	85.2	79.2	74.0	47.5	20.0
White	68.0	14.5	65.6	98.6	93.1	89.9	84.2	80.3	55.1	24.1
Negro	61.8	3.5	46.2	98.3	98.6	80.8	54.3	14.7	4.0	6.4
hola										
Total	56.4	5.3	49.7	98.1	98.9	80.8	53.2	20.3	3.5	1.2
White	51.9	6.6	48.0	100.6	95.8	76.5	62.1	18.5	3.7	1.3
Negro	60.7	4.7	50.8	96.5	99.9	83.9	48.7	20.3	3.2	1.1
rl River										
Total	51.2	8.2	58.2	96.7	86.7	76.5	47.2	21.4	5.4	2.8
White	48.4	5.1	55.1	95.1	83.5	76.8	48.1	23.2	6.3	3.0
Negro	62.4	19.0	71.9	99.9	95.2	75.5	43.3	10.0	0.0	1.5
ry										
Total	55.7	6.9	60.5	94.0	99.1	88.9	57.9	18.1	7.9	2.6
White	53.0	7.2	43.0	97.1	109.2	84.8	56.6	14.6	10.4	3.2
Negro	62.8	6.2	95.3	87.5	82.1	99.2	62.9	37.8	0.0	0.0
e										
Total	57.0	10.5	60.4	95.8	92.8	88.7	57.5	18.6	7.6	2.1
White	52.6	5.4	59.2	94.5	88.4	85.1	70.6	22.7	8.4	2.9
Negro	61.5	14.2	61.6	96.9	95.6	92.1	42.9	11.8	6.4	0.7
ntotoc										
Total	49.4	5.7	48.5	95.0	93.4	84.8	37.5	4.3	1.0	2.8
White	45.8	2.2	44.8	94.5	91.1	81.9	38.8	3.5	1.2	2.5
Negro	60.6	16.8	61.6	92.1	96.0	92.2	33.6	9.8	0.0	4.9
ntiss										
Total	49.5	8.9	75.1	92.5	88.7	78.5	60.8	13.1	9.0	1.0
White	47.9	6.7	72.9	92.9	87.7	77.6	57.9	12.0	9.3	1.2
Negro	59.6	22.2	85.7	90.4	94.0	85.1	83.3	20.0	6.7	0.0

Table 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
Quitman										
Total	57.7	3.6	60.7	97.0	95.0	76.7	69.1	12.4	2.6	2.4
White	46.8	0.0	50.0	97.5	95.3	69.3	53.1	5.7	2.8	1.2
Negro	64.7	5.6	66.3	96.6	94.5	81.8	76.7	18.3	2.2	3.9
Rankin										
Total	45.4	5.4	53.7	92.9	87.4	75.1	45.6	12.4	4.2	2.1
White	42.5	2.1	53.7	91.0	87.9	76.0	40.1	8.3	2.4	2.4
Negro	52.4	12.9	53.6	96.7	85.6	73.2	56.9	22.3	9.0	0.9
Scott										
Total	51.9	7.3	58.3	91.6	91.6	80.4	25.1	6.7	0.8	2.2
White	50.8	3.1	51.3	95.1	98.3	90.8	24.9	7.3	1.1	2.6
Negro	53.8	15.2	71.4	86.4	80.5	64.5	26.2	5.8	0.0	1.1
Sharkey										
Total	59.3	21.8	51.7	99.9	94.4	89.6	43.8	18.1	1.4	0.0
White	40.4	0.0	42.4	99.9	91.0	88.2	64.1	0.0	0.0	0.0
Negro	67.5	31.8	54.2	99.9	95.2	90.0	36.0	25.8	2.9	0.0
Simpson										
Total	42.1	2.2	42.2	82.0	77.6	69.4	28.1	5.0	1.7	1.5
White	40.4	3.5	38.1	81.5	76.6	75.5	26.2	1.4	2.5	2.0
Negro	44.8	0.0	48.7	81.6	79.1	55.8	30.5	10.6	0.0	0.0
Smith										
Total	49.7	4.8	46.9	90.9	93.1	78.1	48.1	23.7	3.6	2.1
White	49.1	5.1	43.1	94.4	94.0	84.9	52.8	20.4	1.3	2.1
Negro	52.6	4.2	57.6	84.8	90.7	57.4	37.9	42.6	11.1	2.2
Stone										
Total	54.1	4.5	41.9	96.3	89.3	82.7	80.1	30.2	4.9	6.0
White	54.6	0.0	33.7	96.4	90.2	94.2	86.1	29.6	6.2	7.4
Negro	52.6	11.9	58.5	96.1	87.0	50.6	50.6	34.3	0.0	0.0
Sunflower										
Total	59.2	39.5	74.2	93.7	89.6	82.1	59.5	26.1	6.5	1.8
White	48.6	11.9	64.2	86.8	84.1	85.2	71.5	27.4	6.5	1.8
Negro	63.9	45.2	78.0	95.7	91.6	80.2	54.3	25.2	6.6	1.8
Tallahatchie										
Total	59.0	2.5	62.4	98.2	92.6	81.0	52.5	17.6	3.7	3.7
White	49.5	0.0	46.9	100.5	97.6	82.3	39.4	0.0	2.3	4.3
Negro	63.8	3.2	68.8	97.2	90.9	79.6	59.1	27.2	5.2	3.0
Tate										
Total	57.0	7.4	63.9	93.9	91.5	81.2	71.9	27.4	2.9	2.8
White	52.2	3.4	54.7	93.9	94.4	81.8	78.9	36.9	1.5	3.2
Negro	61.5	10.2	70.2	93.9	89.5	80.8	57.3	16.7	4.9	2.0
Tippah										
Total	50.0	8.5	64.3	91.2	85.3	73.4	49.4	25.3	6.3	1.6
White	49.2	5.1	62.1	93.0	86.6	78.5	55.7	25.7	7.3	1.2
Negro	54.6	25.3	73.0	86.9	79.4	55.8	22.3	24.3	0.0	5.3
Tishomingo										
Total	48.4	8.1	69.0	95.4	90.0	92.6	55.6	15.3	1.5	1.4
White	47.7	8.4	68.2	95.0	88.1	91.2	52.7	15.8	1.5	1.4
Negro	62.7	0.0	80.0	99.9	99.9	NA	NA	0.0	0.0	0.0
Tunica										
Total	55.4	2.2	56.4	96.1	80.8	81.4	33.4	11.5	15.5	0.5
White	43.9	0.0	57.8	89.1	83.6	73.4	8.2	17.4	6.3	0.0
Negro	59.4	2.5	56.1	98.1	80.0	84.0	40.5	9.3	22.0	1.0
Union										
Total	46.3	4.8	59.1	93.4	94.7	75.9	43.0	6.5	4.3	3.7
White	46.2	3.5	54.2	96.1	96.9	77.6	49.6	4.6	5.1	4.0
Negro	47.0	8.4	81.3	82.2	85.2	70.1	18.8	20.9	0.0	2.2

able 15.-(continued)

Area and Race	Percent Enrollment of Persons in Stated Ages									
	3-34	3-4	5-6	7-13	14-15	16-17	18-19	20-21	22-24	25-34
althall										
Total	53.0	13.5	50.0	93.3	92.7	79.5	56.8	17.2	4.5	1.1
White	46.0	7.0	41.6	90.9	90.3	80.5	63.1	9.9	0.0	0.6
Negro	61.0	19.0	56.8	95.8	94.6	78.5	51.8	29.2	9.1	2.2
arren										
Total	54.3	10.5	60.0	95.7	94.5	82.1	58.2	21.3	8.6	3.4
White	48.3	6.2	55.7	95.4	91.9	83.1	57.9	19.8	7.3	3.0
Negro	62.8	16.6	65.9	95.9	97.6	80.3	57.8	23.3	11.6	4.5
ashington										
Total	56.4	23.0	63.1	96.1	90.1	82.2	48.0	15.2	5.0	2.9
White	49.0	11.4	61.6	94.7	88.3	79.5	46.7	10.6	3.7	2.4
Negro	62.0	29.7	63.9	97.0	91.1	84.2	47.5	15.5	6.6	3.6
ayne										
Total	57.1	24.1	58.5	97.5	92.9	87.2	63.8	15.1	9.0	3.6
White	52.0	11.2	48.9	98.3	91.6	84.9	64.0	13.6	5.4	2.2
Negro	66.3	41.8	74.9	96.4	94.9	92.0	63.6	18.8	17.5	7.5
ebster										
Total	55.8	0.0	61.2	95.1	86.8	98.4	56.9	38.4	4.9	0.0
White	51.9	0.0	50.0	95.0	78.6	93.6	62.5	41.1	5.8	0.0
Negro	65.5	0.0	82.4	95.5	99.9	99.9	43.6	22.8	0.0	0.0
lkinson										
Total	59.2	8.2	71.7	92.4	93.8	77.1	42.1	8.2	4.4	2.1
White	49.0	0.0	40.6	92.6	93.5	60.3	30.6	13.6	0.0	0.0
Negro	63.1	11.0	81.4	92.4	93.9	81.1	44.5	5.2	6.5	3.5
nston										
Total	53.9	4.1	45.6	96.4	94.7	91.1	51.4	15.6	2.7	3.2
White	50.0	4.6	47.6	96.8	97.8	96.3	57.6	16.7	1.5	3.3
Negro	58.5	3.9	41.8	95.2	91.8	86.1	45.7	13.9	5.4	3.3
lobusha										
Total	55.3	8.4	52.5	97.8	99.9	88.8	43.0	4.2	11.2	2.8
White	46.8	0.0	27.3	95.1	89.1	93.0	30.8	3.7	15.5	4.4
Negro	64.7	16.4	73.6	99.9	99.9	85.4	54.4	4.9	3.7	0.0
zoo										
Total	56.8	5.9	54.8	92.5	93.4	89.2	49.9	11.9	1.4	1.2
White	53.9	5.6	56.9	91.5	103.8	96.2	53.7	18.6	1.1	1.1
Negro	58.9	6.1	53.5	93.2	87.0	84.3	47.9	5.3	1.8	1.2

urce: U.S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, ssissippi: Summary Tape Processing Center), Fourth Count, Tabs 39 and 105; 1970 Census of Population, port PC(1)-C1, Tables 88 and 131; Reports PC(1)-C2, PC(1)-C19, PC(1)-C26, PC(1)-C44 (Washington, D.C.: GPO), Tables 51.

te: NA indicates figures not available for computation of percentage.

0 East South Central.

TABLE 16.-YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OLDER, BY RACE, PLACE OF RESIDENCE AND SEX, UNITED STATES, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
United States					
Total	28.3	50.4	10.6	10.7	12.1
Urban	25.6	50.8	11.5	12.1	12.2
Rural	35.9	49.3	8.1	6.7	--
Male	29.6	46.3	10.7	13.5	12.1
Female	27.1	54.2	10.6	8.1	12.1
White	26.6	51.0	11.1	11.3	12.1
Urban	23.9	51.1	12.1	12.9	12.2
Rural	33.8	50.8	8.5	7.0	--
Male	27.8	46.7	11.1	14.4	12.1
Female	25.6	54.9	11.1	8.4	12.1
Negro	43.8	46.0	5.9	4.4	9.8
Urban	39.2	49.4	6.6	4.8	10.2
Rural	65.3	29.9	2.3	2.6	--
Male	47.0	42.8	6.0	4.2	9.4
Female	41.1	48.5	5.8	4.6	10.0
E.S.C.(1)					
Total	40.2	44.2	7.9	7.7	--
Urban	31.3	47.6	10.3	10.8	--
Rural	50.7	40.1	5.1	4.1	--
Male	42.6	40.1	7.9	9.4	--
Female	38.0	47.8	7.9	6.3	--
White	36.3	46.4	8.8	8.5	--
Urban	26.3	49.8	11.7	12.2	--
Rural	47.5	42.6	5.6	4.4	--
Male	38.3	42.1	8.8	10.5	--
Female	34.3	50.2	8.8	6.7	--
Negro	58.9	33.8	3.4	3.9	--
Urban	51.9	38.9	4.4	4.8	--
Rural	71.1	24.8	1.8	2.3	--
Male	63.5	30.0	3.3	3.2	--
Female	55.2	36.7	3.6	4.5	--
Mississippi					
Total	38.7	44.3	9.0	8.1	10.7
Urban	29.4	46.1	12.3	12.3	12.1
Rural	46.2	42.8	6.3	4.6	9.5
Male	41.8	39.5	9.2	9.5	10.4
Female	36.0	48.4	8.8	6.9	10.9
White	25.6	52.5	11.9	10.0	12.1
Urban	16.9	52.0	15.9	15.2	12.4
Rural	32.9	53.0	8.5	5.6	11.0
Male	28.7	47.2	12.1	12.1	12.1
Female	22.8	57.4	11.7	8.1	12.1
Negro	68.0	25.8	2.5	3.7	7.5
Urban	59.3	31.9	3.6	5.2	8.3
Rural	74.5	21.3	1.7	2.5	6.9
Male	73.4	21.2	2.3	3.0	6.5
Female	63.7	29.5	2.7	4.2	8.1

(1) East South Central

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Adams					
Total	36.4	25.7	8.8	8.7	11.0
Urban	34.8	25.8	9.2	9.9	11.2
Rural	38.5	25.6	8.4	7.1	10.7
Male	39.7	22.8	10.1	10.6	10.8
Female	33.7	28.1	7.8	7.1	11.1
White	17.4	37.5	12.9	11.6	12.3
Urban	13.9	38.8	14.1	14.5	12.4
Rural	21.3	36.0	11.6	8.4	12.2
Male	20.3	31.8	14.2	15.1	12.3
Female	14.7	42.6	11.8	8.5	12.3
Negro	61.4	10.3	3.5	4.8	8.0
Urban	59.3	10.7	3.4	4.6	8.2
Rural	64.5	9.7	3.6	5.3	7.5
Male	68.7	9.3	4.0	3.9	6.7
Female	56.1	11.0	3.1	5.5	8.5
Alcorn					
Total	44.9	24.2	6.3	5.5	9.8
Urban	36.5	25.1	7.9	10.0	11.0
Rural	51.6	23.5	5.0	1.9	8.9
Male	46.9	25.4	6.6	6.5	9.6
Female	43.2	23.3	6.1	4.6	9.9
White	42.2	26.2	6.8	5.9	10.2
Urban	31.0	28.5	9.0	11.4	11.8
Rural	50.1	24.5	5.3	2.0	9.0
Male	43.9	27.3	7.0	7.1	10.2
Female	40.8	25.2	6.6	4.8	10.2
Negro	69.3	6.5	2.1	2.2	7.9
Urban	65.5	6.9	2.5	3.0	8.2
Rural	78.9	5.5	1.1	0.0	7.3
Male	74.8	6.9	3.0	0.6	7.3
Female	64.8	6.2	1.3	3.4	8.3
Amite					
Total	49.0	17.9	5.4	5.5	9.1
Urban	--(2)	--	--	--	--
Rural	49.0	17.9	5.4	5.5	9.1
Male	55.5	15.8	5.3	5.3	8.6
Female	43.0	19.8	5.5	5.8	9.8
White	33.6	26.5	8.2	6.6	11.0
Urban	--	--	--	--	--
Rural	33.6	26.5	8.2	6.6	11.0
Male	39.5	23.4	7.9	6.8	10.4
Female	28.1	29.4	8.6	6.5	11.4
Negro	71.5	5.4	1.2	4.0	7.5
Urban	--	--	--	--	--
Rural	71.5	5.4	1.2	4.0	7.5
Male	79.4	4.5	1.3	3.1	6.2
Female	64.4	6.1	1.1	4.8	8.4

(2) No urban population

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Attala					
Total	43.3	21.5	6.2	5.1	9.8
Urban	36.7	22.2	9.1	8.2	10.7
Rural	47.6	21.0	4.4	3.1	9.3
Male	50.1	18.1	7.3	4.8	9.0
Female	37.4	24.4	5.3	5.3	10.4
White	28.9	29.0	8.4	6.3	11.3
Urban	23.8	29.4	6.1	3.8	10.9
Rural	32.4	35.0	5.4	3.3	10.9
Male	35.8	24.9	9.4	6.4	10.8
Female	22.9	32.5	7.5	6.2	11.6
Negro	73.1	5.9	1.8	2.7	7.1
Urban	64.8	9.1	3.0	4.3	7.5
Rural	78.0	4.0	1.0	1.8	7.0
Male	80.2	3.8	2.7	1.6	5.9
Female	67.1	7.7	1.0	3.6	8.0
Benton					
Total	55.2	17.8	2.9	3.9	8.7
Urban	--	--	--	--	--
Rural	55.2	17.8	2.9	3.9	8.7
Male	60.8	16.7	2.8	3.8	8.3
Female	50.0	18.8	3.1	4.0	9.0
White	44.0	23.8	4.2	4.8	9.8
Urban	--	--	--	--	--
Rural	44.0	23.8	4.2	4.8	9.8
Male	49.7	22.5	4.0	4.6	9.0
Female	38.6	24.9	4.4	5.0	10.3
Negro	81.0	4.0	0.0	1.8	7.0
Urban	--	--	--	--	--
Rural	81.0	4.0	0.0	1.8	7.0
Male	86.8	3.0	0.0	1.9	6.0
Female	75.8	5.0	0.0	1.7	7.8
Bolivar					
Total	52.6	16.2	6.9	8.0	8.7
Urban	41.4	22.0	8.6	11.8	10.6
Rural	61.1	11.7	5.6	5.2	7.8
Male	56.0	15.0	6.2	8.9	8.3
Female	49.8	17.1	7.5	7.4	9.0
White	24.8	29.2	13.1	13.5	12.2
Urban	15.9	34.1	14.2	18.1	12.5
Rural	34.9	23.6	11.8	8.2	11.1
Male	29.5	27.1	11.1	14.6	12.1
Female	20.6	31.0	14.8	12.4	12.3
Negro	76.6	5.0	1.6	3.3	6.1
Urban	74.9	6.2	1.4	3.3	6.3
Rural	77.5	4.3	1.7	3.3	5.9
Male	81.6	3.3	1.5	3.2	5.3
Female	72.9	6.2	1.7	3.3	6.6
Calhoun					
Total	44.0	21.3	5.5	4.3	9.7
Urban	--	--	--	--	--
Rural	44.0	21.3	5.5	4.3	9.7
Male	47.2	19.4	6.1	5.1	9.4
Female	41.2	23.0	4.9	3.7	10.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	35.8	25.3	6.5	4.6	10.5
Urban	--	--	--	--	--
Rural	35.8	25.3	6.5	4.6	10.5
Male	39.3	23.2	7.1	5.5	10.3
Female	32.8	27.2	6.0	3.8	10.7
Negro	80.6	3.4	0.9	3.2	7.2
Urban	--	--	--	--	--
Rural	80.6	3.4	0.9	3.2	7.2
Male	84.3	1.5	1.4	3.0	6.6
Female	77.6	4.9	0.5	3.4	7.5
Carroll					
Total	52.5	16.2	6.0	4.4	8.9
Urban	--	--	--	--	--
Rural	52.5	16.2	6.0	4.4	8.9
Male	58.5	13.2	5.5	5.2	8.4
Female	47.1	18.9	6.5	3.7	9.4
White	36.1	23.0	9.3	5.9	10.6
Urban	--	--	--	--	--
Rural	36.1	23.0	9.3	5.9	10.6
Male	41.0	19.9	8.9	7.7	10.2
Female	31.5	25.9	9.6	4.3	10.9
Negro	76.8	6.0	1.2	2.2	7.0
Urban	--	--	--	--	--
Rural	76.8	6.0	1.2	2.2	7.0
Male	84.2	3.4	0.4	1.5	5.9
Female	70.0	8.5	1.9	2.8	8.2
Chickasaw					
Total	44.2	20.6	5.6	5.2	9.7
Urban	32.8	24.3	9.2	8.7	11.1
Rural	50.5	18.5	3.6	3.3	9.0
Male	48.7	16.3	5.6	6.1	9.2
Female	40.3	24.3	5.6	4.5	10.1
White	35.7	26.0	6.5	5.5	10.6
Urban	24.6	30.5	10.1	8.3	11.9
Rural	42.3	23.3	4.4	3.8	9.9
Male	39.2	21.1	6.3	7.2	10.2
Female	32.7	30.2	6.7	4.0	11.0
Negro	65.2	7.3	3.3	4.6	8.1
Urban	56.2	6.8	6.8	9.8	8.6
Rural	69.4	7.5	1.7	2.1	7.8
Male	72.5	4.1	3.9	3.0	7.5
Female	59.0	9.9	2.8	5.9	8.5
Choctaw					
Total	41.1	21.9	5.1	4.5	10.0
Urban	--	--	--	--	--
Rural	41.1	21.9	5.1	4.5	10.0
Male	48.0	16.1	4.3	4.8	9.2
Female	35.2	26.9	5.8	4.2	10.6
White	33.8	25.2	6.1	4.7	10.6
Urban	--	--	--	--	--
Rural	33.8	25.2	6.1	4.7	10.6
Male	39.9	18.9	5.3	5.7	10.0
Female	28.6	30.6	6.8	3.8	11.1

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	69.5	9.1	1.1	3.5	7.8
Urban	--	--	--	--	--
Rural	69.5	9.1	1.1	3.5	7.8
Male	81.5	4.3	0.0	1.0	6.0
Female	60.0	12.8	1.9	5.5	8.4
Claiborne					
Total	53.8	16.2	5.7	10.9	8.8
Urban	42.2	19.6	9.1	13.8	10.5
Rural	59.2	14.5	4.2	9.6	8.5
Male	59.6	11.3	4.5	13.2	8.4
Female	49.1	20.2	6.7	9.0	9.2
White	25.7	30.0	11.9	14.8	12.2
Urban	10.9	34.7	18.8	21.2	12.7
Rural	34.0	27.4	8.0	11.2	11.5
Male	33.0	18.8	11.1	22.3	12.1
Female	19.2	40.1	12.6	8.1	12.3
Negro	69.0	8.7	2.4	8.8	8.0
Urban	63.1	9.6	2.6	8.8	8.3
Rural	71.4	8.3	2.3	8.8	7.9
Male	74.8	6.9	0.8	8.0	7.1
Female	64.3	10.1	3.7	9.4	8.3
Clarke					
Total	45.3	21.3	6.7	4.8	9.6
Urban	37.5	23.0	7.3	10.5	10.7
Rural	47.1	20.9	6.5	3.5	9.4
Male	48.4	19.4	6.7	5.5	9.2
Female	42.5	22.9	6.6	4.3	9.9
White	34.2	27.1	8.9	5.7	11.0
Urban	23.4	29.3	9.9	14.3	12.1
Rural	36.9	26.5	8.6	3.5	10.6
Male	37.4	24.9	9.0	6.6	10.7
Female	31.3	29.1	8.7	4.8	11.1
Negro	70.9	7.8	1.4	2.9	7.6
Urban	77.1	5.2	0.0	0.0	7.1
Rural	69.6	8.3	1.7	3.5	7.7
Male	74.2	6.5	1.0	2.7	6.8
Female	68.0	8.9	1.8	3.0	8.1
Clay					
Total	39.2	22.3	8.3	8.1	10.5
Urban	30.8	24.3	10.5	10.9	11.4
Rural	47.3	20.5	6.3	5.4	9.4
Male	43.8	20.4	8.1	7.5	9.9
Female	35.5	23.9	8.5	8.6	10.8
White	20.8	31.7	12.1	10.7	12.1
Urban	16.9	32.4	14.3	13.3	12.3
Rural	25.1	30.9	9.7	7.6	11.8
Male	24.6	29.6	12.1	10.3	12.1
Female	17.4	33.5	12.1	10.9	12.2
Negro	66.2	8.7	2.8	4.2	7.9
Urban	56.0	9.6	3.7	6.2	8.5
Rural	73.8	8.0	2.1	2.7	7.4
Male	73.4	6.2	1.8	3.2	6.9
Female	60.6	10.6	3.5	5.0	8.4

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Coahoma					
Total	53.2	15.2	7.1	8.9	8.7
Urban	43.2	19.3	9.4	11.0	10.2
Rural	66.9	9.6	3.8	6.0	6.9
Male	55.3	14.2	6.3	9.8	8.3
Female	51.5	16.0	7.7	8.2	8.8
White	20.1	29.7	13.2	16.2	12.3
Urban	17.6	31.4	14.8	16.7	12.4
Rural	25.6	25.9	9.6	15.1	12.0
Male	21.3	27.3	12.1	18.1	12.3
Female	19.1	31.6	14.2	14.6	12.3
Negro	78.4	4.2	2.3	3.4	5.8
Urban	70.6	6.4	3.6	5.0	6.8
Rural	85.9	2.1	1.1	1.9	5.1
Male	83.1	3.5	1.6	3.1	4.8
Female	74.9	4.7	2.9	3.7	6.6
Copiah					
Total	41.0	20.6	8.2	6.2	10.1
Urban	36.0	22.4	10.2	9.5	10.9
Rural	43.9	19.6	7.1	4.4	9.7
Male	46.2	17.5	8.9	6.8	9.6
Female	36.8	23.1	7.8	5.7	10.5
White	22.4	29.0	13.0	8.7	12.0
Urban	16.7	30.0	15.7	14.3	12.3
Rural	25.7	28.4	11.3	5.3	11.5
Male	26.7	24.1	14.0	10.2	11.8
Female	18.7	33.0	12.1	7.3	12.1
Negro	67.1	9.0	1.7	2.8	8.0
Urban	63.7	11.6	2.3	2.5	8.2
Rural	69.0	7.4	1.3	3.0	7.6
Male	74.5	8.0	1.4	1.9	6.7
Female	61.3	9.7	1.9	3.6	8.4
Covington					
Total	42.1	22.2	6.8	5.6	10.0
Urban	--	--	--	--	--
Rural	42.1	22.2	6.8	5.6	10.0
Male	46.2	18.4	8.3	6.4	9.5
Female	38.5	25.5	5.6	5.0	10.4
White	34.6	27.3	8.2	5.8	10.9
Urban	--	--	--	--	--
Rural	34.6	27.3	8.2	5.8	10.9
Male	38.9	22.5	10.0	6.6	10.5
Female	30.8	31.5	6.6	5.1	11.2
Negro	63.9	7.3	3.0	5.1	7.8
Urban	--	--	--	--	--
Rural	63.9	7.3	3.0	5.1	7.8
Male	68.8	6.0	3.2	5.6	7.0
Female	60.0	8.4	2.8	4.7	8.1
De Soto					
Total	37.6	29.0	8.8	5.3	10.9
Urban	9.7	47.7	16.4	7.9	12.5
Rural	47.2	22.6	6.2	4.4	9.4
Male	39.1	27.5	10.2	5.8	10.9
Female	36.2	30.5	7.4	4.8	11.0

Table 16-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	20.6	38.2	12.0	6.8	12.2
Urban	9.5	47.8	16.4	7.9	12.5
Rural	26.7	32.9	9.5	6.2	11.8
Male	22.4	35.7	13.9	7.8	12.2
Female	18.8	40.6	10.0	5.8	12.2
Negro	80.7	5.8	0.8	1.6	6.4
Urban	100.0	0.0	0.0	0.0	0.0
Rural	80.6	5.8	0.9	1.6	6.4
Male	83.3	5.7	0.4	0.5	5.6
Female	78.3	5.8	1.3	2.6	7.1
Forrest					
Total	26.9	27.0	13.0	13.3	12.1
Urban	24.0	27.5	14.6	15.9	12.3
Rural	36.4	25.5	7.6	4.6	10.6
Male	29.6	23.9	13.9	15.7	12.1
Female	24.7	29.5	12.2	11.2	12.1
White	18.2	31.1	15.6	15.7	12.4
Urban	14.7	31.5	17.7	19.0	12.6
Rural	29.2	29.9	9.0	5.1	11.3
Male	21.0	26.8	16.6	19.0	12.5
Female	15.9	34.8	14.7	12.8	12.4
Negro	56.5	13.2	3.6	5.0	8.4
Urban	54.5	14.4	4.0	5.7	8.6
Rural	63.6	8.9	2.4	2.6	7.9
Male	61.8	13.7	2.8	3.7	7.8
Female	52.7	12.9	4.2	6.0	8.8
Franklin					
Total	42.1	21.5	7.1	4.6	10.0
Urban	--	--	--	--	--
Rural	42.1	21.5	7.1	4.6	10.0
Male	45.7	22.1	6.0	5.1	9.6
Female	39.0	21.0	8.0	4.2	10.2
White	27.4	27.0	9.4	5.6	11.2
Urban	--	--	--	--	--
Rural	27.4	27.0	9.4	5.6	11.2
Male	33.3	26.3	8.0	6.4	10.9
Female	22.1	27.6	10.6	4.8	11.4
Negro	73.5	9.8	2.1	2.6	6.8
Urban	--	--	--	--	--
Rural	73.5	9.8	2.1	2.6	6.8
Male	73.9	12.7	1.4	2.1	5.8
Female	73.2	7.5	2.7	3.1	7.5
George					
Total	36.9	25.0	7.1	5.5	10.5
Urban	--	--	--	--	--
Rural	36.9	25.0	7.1	5.5	10.5
Male	38.9	21.6	7.8	6.5	10.3
Female	34.8	28.3	6.4	4.5	10.7
White	35.5	26.8	7.1	5.8	10.7
Urban	--	--	--	--	--
Rural	35.5	26.8	7.1	5.8	10.7
Male	37.1	23.3	7.3	7.1	10.5
Female	33.9	30.2	6.8	4.6	11.0

Table 16-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	49.7	7.8	7.5	2.4	9.0
Urban	--	--	--	--	--
Rural	49.7	7.8	7.5	2.4	9.0
Male	56.8	5.2	12.9	1.1	8.5
Female	43.4	10.1	2.8	3.7	9.5
Greene					
Total	42.2	24.4	8.1	4.6	10.1
Urban	--	--	--	--	--
Rural	42.2	24.4	8.1	4.6	10.1
Male	45.0	23.4	8.1	5.2	9.8
Female	39.6	25.3	8.2	4.1	10.4
White	36.3	27.8	9.0	5.4	10.9
Urban	--	--	--	--	--
Rural	36.3	27.8	9.0	5.4	10.9
Male	38.5	26.8	9.2	6.1	10.8
Female	34.4	28.7	8.9	4.8	11.0
Negro	67.7	9.8	4.2	1.0	7.6
Urban	--	--	--	--	--
Rural	67.7	9.8	4.2	1.0	7.6
Male	74.1	8.1	3.0	1.1	6.9
Female	62.1	11.2	5.3	1.0	8.0
Grenada					
Total	41.5	22.7	7.7	6.5	10.2
Urban	36.4	26.9	8.8	9.5	11.2
Rural	47.0	18.1	6.4	3.2	9.4
Male	44.4	21.4	6.8	8.0	9.9
Female	39.0	23.7	8.4	5.3	10.4
White	22.7	31.6	11.1	8.4	12.0
Urban	15.7	37.6	12.9	12.2	12.3
Rural	30.3	25.0	9.1	4.2	10.9
Male	26.1	29.1	9.8	10.6	11.9
Female	19.8	33.6	12.2	6.5	12.1
Negro	74.8	6.9	1.6	3.1	7.3
Urban	72.6	8.1	1.7	4.8	7.4
Rural	77.3	5.6	1.5	1.2	7.1
Male	78.9	6.9	1.2	3.0	5.9
Female	71.7	6.9	1.9	3.2	8.0
Hancock					
Total	33.5	27.8	9.8	8.8	11.5
Urban	27.6	30.1	12.2	11.2	12.1
Rural	42.0	24.5	6.4	5.4	10.1
Male	36.1	24.9	10.7	10.7	11.4
Female	31.2	30.5	9.0	7.1	11.5
White	30.7	29.1	10.9	9.5	11.9
Urban	24.3	31.3	14.0	12.5	12.2
Rural	39.2	26.0	6.8	5.5	10.4
Male	32.6	26.1	11.8	11.9	11.9
Female	28.9	31.9	10.0	7.3	11.9
Negro	54.0	19.2	1.6	4.3	8.6
Urban	46.3	23.5	2.3	4.1	9.5
Rural	72.5	9.0	0.0	4.6	7.1
Male	61.9	16.8	1.6	2.5	8.0
Female	47.1	21.4	1.7	5.8	9.4

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Harrison					
Total	25.8	33.8	11.5	9.5	12.1
Urban	25.7	32.8	11.8	10.2	12.1
Rural	26.6	38.2	9.4	6.4	12.1
Male	26.8	32.1	12.2	12.1	12.2
Female	24.9	35.4	10.7	7.1	12.1
White	21.9	36.3	12.6	10.7	12.3
Urban	21.2	35.6	13.4	11.7	12.3
Rural	25.0	39.4	9.4	6.6	12.1
Male	23.0	34.2	13.4	13.6	12.3
Female	20.8	38.5	11.8	7.8	12.2
Negro	47.3	19.5	5.1	3.4	9.3
Urban	46.5	19.7	4.9	3.5	8.1
Rural	62.4	14.5	8.0	1.2	9.4
Male	49.5	19.4	4.9	3.3	9.1
Female	45.5	19.5	5.1	3.5	9.5
Hinds					
Total	24.2	28.1	15.2	16.0	12.3
Urban	21.2	29.2	16.2	17.4	12.4
Rural	40.5	22.2	9.2	7.7	10.4
Male	26.5	23.5	14.6	20.5	12.4
Female	22.2	31.9	15.6	12.2	12.3
White	9.8	35.7	20.0	20.7	12.7
Urban	8.8	35.8	20.8	21.9	12.8
Rural	16.8	34.4	14.5	12.4	12.3
Male	11.3	29.5	19.2	27.3	12.9
Female	8.5	40.8	20.8	15.2	12.6
Negro	54.2	12.3	4.9	6.0	8.7
Urban	49.8	13.8	5.7	7.1	9.0
Rural	71.8	6.2	2.1	1.5	7.5
Male	59.7	10.4	4.7	5.7	8.3
Female	50.0	13.8	5.1	6.2	9.0
Holmes					
Total	56.3	14.6	7.2	6.1	8.6
Urban	39.7	21.9	12.3	8.6	10.8
Rural	62.4	11.9	5.4	5.2	8.2
Male	61.5	12.6	5.4	6.5	8.1
Female	52.2	16.2	8.6	5.8	8.9
White	22.0	28.6	16.0	11.2	12.2
Urban	18.3	31.0	19.5	11.3	12.4
Rural	24.5	26.9	13.6	11.1	12.1
Male	27.0	26.1	11.6	14.1	12.1
Female	17.8	30.6	19.6	8.8	12.3
Negro	78.1	5.6	1.7	2.9	7.0
Urban	69.3	8.8	2.6	5.0	7.8
Rural	80.1	4.9	1.5	2.4	6.8
Male	84.8	3.3	1.3	1.5	5.7
Female	73.0	7.3	2.0	4.0	7.9
Humphreys					
Total	58.0	12.2	6.7	4.8	8.3
Urban	49.8	15.7	9.4	9.7	9.0
Rural	60.6	11.1	5.9	3.3	8.1
Male	60.8	11.0	6.5	5.3	8.2
Female	55.7	13.2	6.9	4.4	8.5

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	31.3	24.2	13.2	7.0	11.3
Urban	16.2	30.5	17.8	13.1	12.4
Rural	36.4	22.0	11.7	4.9	10.6
Male	35.7	20.7	11.5	8.7	10.8
Female	27.3	27.4	14.8	5.3	11.7
Negro	79.4	2.5	1.5	3.1	6.4
Urban	80.0	2.4	1.9	6.6	6.3
Rural	79.3	2.5	1.4	2.1	6.4
Male	83.1	2.3	2.1	2.3	5.8
Female	76.7	2.6	1.1	3.8	6.8
Issaquena					
Total	57.2	16.6	5.8	2.4	8.3
Urban	--	--	--	--	--
Rural	57.2	16.6	5.8	2.4	8.3
Male	56.7	14.0	10.0	2.0	8.1
Female	57.7	19.1	2.0	2.9	8.5
White	33.3	30.8	8.2	4.7	11.2
Urban	--	--	--	--	--
Rural	33.3	30.8	8.2	4.7	11.2
Male	37.6	25.9	11.4	4.1	10.8
Female	28.7	36.2	4.9	5.2	11.5
Negro	75.9	5.5	3.9	0.7	5.7
Urban	--	--	--	--	--
Rural	75.9	5.5	3.9	0.7	5.7
Male	74.0	3.1	8.8	0.0	5.2
Female	77.5	7.4	0.0	1.3	6.1
Itawamba					
Total	50.2	17.3	6.4	3.5	9.0
Urban	30.7	26.2	12.5	9.4	11.7
Rural	54.2	15.5	5.2	2.3	8.8
Male	52.2	15.3	8.6	4.3	8.9
Female	48.4	19.1	4.4	2.7	9.2
White	49.3	17.9	6.5	3.4	9.1
Urban	27.3	28.4	13.4	9.9	12.1
Rural	53.6	15.8	5.2	2.1	8.8
Male	51.5	15.5	8.9	4.3	8.9
Female	47.3	20.1	4.3	2.5	9.3
Negro	67.1	6.3	4.8	5.2	8.4
Urban	62.3	4.6	3.9	4.6	8.2
Rural	69.4	7.1	5.3	5.6	8.4
Male	67.0	10.2	1.5	4.6	8.4
Female	67.1	3.6	7.1	5.7	8.4
Jackson					
Total	23.3	35.0	11.6	8.9	12.2
Urban	21.0	35.7	12.9	10.3	12.2
Rural	29.3	33.1	8.5	5.2	11.6
Male	24.4	33.3	12.8	11.2	12.2
Female	22.3	36.7	10.4	6.6	12.1
White	20.5	37.0	12.7	9.6	12.2
Urban	17.1	38.3	14.5	11.5	12.4
Rural	28.1	34.0	8.8	5.4	11.8
Male	21.0	35.0	13.9	12.2	12.3
Female	20.0	38.9	11.6	6.9	12.2

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	41.1	22.4	4.6	4.2	10.0
Urban	39.8	23.1	4.8	4.5	10.1
Rural	52.9	16.3	3.2	1.4	8.7
Male	46.8	21.4	5.9	4.1	9.4
Female	36.0	23.3	3.5	4.4	10.3
Jasper					
Total	38.4	24.0	8.2	4.5	10.4
Urban	--	--	--	--	--
Rural	38.4	24.0	8.2	4.5	10.4
Male	44.8	21.6	5.9	5.7	9.7
Female	32.8	26.1	10.2	3.5	10.9
White	22.9	34.4	12.1	5.2	12.1
Urban	--	--	--	--	--
Rural	22.9	34.4	12.1	5.2	12.1
Male	28.9	31.4	8.5	7.7	11.7
Female	17.4	37.1	15.4	3.0	12.1
Negro	64.1	6.5	1.8	3.4	8.2
Urban	--	--	--	--	--
Rural	64.1	6.5	1.8	3.4	8.2
Male	72.8	4.1	1.5	2.2	6.7
Female	57.1	8.4	2.2	4.4	8.6
Jefferson					
Total	60.9	14.2	4.2	3.6	8.3
Urban	--	--	--	--	--
Rural	60.9	14.2	4.2	3.6	8.3
Male	68.1	12.5	4.7	2.6	7.6
Female	55.0	15.6	3.9	4.4	8.7
White	24.4	34.0	9.8	5.5	11.9
Urban	--	--	--	--	--
Rural	24.4	34.0	9.8	5.5	11.9
Male	32.4	32.4	10.8	4.6	11.7
Female	17.4	35.3	8.9	6.4	12.0
Negro	78.3	4.7	1.6	2.6	6.8
Urban	--	--	--	--	--
Rural	78.3	4.7	1.6	2.6	6.8
Male	86.0	2.4	1.6	1.6	5.9
Female	72.2	6.5	1.5	3.4	7.8
Jefferson Davis					
Total	38.4	21.7	7.8	7.4	10.4
Urban	--	--	--	--	--
Rural	38.4	21.7	7.8	7.4	10.4
Male	41.7	20.9	8.6	7.2	10.1
Female	35.6	22.4	7.0	7.5	10.6
White	21.7	31.7	11.3	8.6	12.1
Urban	--	--	--	--	--
Rural	21.7	31.7	11.3	8.6	12.1
Male	25.2	30.7	12.1	8.1	12.0
Female	18.5	32.7	10.6	9.1	12.1
Negro	61.9	7.6	2.8	5.7	8.4
Urban	--	--	--	--	--
Rural	61.9	7.6	2.8	5.7	8.4
Male	66.1	6.4	3.3	5.9	8.1
Female	58.4	8.6	2.3	5.5	8.7

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Jones					
Total	36.4	25.3	9.8	7.3	10.9
Urban	35.2	24.6	11.7	10.6	11.5
Rural	37.7	26.1	7.8	3.8	10.5
Male	39.9	22.4	10.2	8.4	10.6
Female	33.4	27.8	9.5	6.4	11.2
White	29.3	28.9	11.7	8.1	11.8
Urban	23.3	30.0	15.5	13.1	12.3
Rural	34.3	28.0	8.6	3.9	10.9
Male	32.2	25.5	12.1	9.4	11.6
Female	26.7	32.0	11.3	6.9	12.0
Negro	64.2	11.4	2.4	4.3	8.0
Urban	63.3	12.0	2.8	4.7	8.1
Rural	66.9	9.6	1.2	3.2	7.6
Male	72.0	9.7	2.2	4.0	6.7
Female	58.1	12.7	2.5	4.6	8.5
Kemper					
Total	52.5	17.5	6.6	3.6	8.8
Urban	--	--	--	--	--
Rural	52.5	17.5	6.6	3.6	8.8
Male	54.3	16.2	7.1	3.3	8.6
Female	50.9	18.7	6.1	3.9	8.9
White	32.2	25.3	11.2	6.0	11.1
Urban	--	--	--	--	--
Rural	32.2	25.3	11.2	6.0	11.1
Male	33.6	23.1	12.4	5.8	10.9
Female	30.9	27.4	10.1	6.3	11.3
Negro	75.9	8.2	1.2	0.9	6.9
Urban	--	--	--	--	--
Rural	75.9	8.2	1.2	0.9	6.9
Male	78.2	8.2	0.9	0.5	5.5
Female	73.7	8.3	1.5	1.2	7.6
Lafayette					
Total	31.5	22.5	10.1	18.5	12.0
Urban	17.9	23.3	14.3	33.5	12.9
Rural	45.2	21.6	5.9	3.4	9.6
Male	34.6	18.7	9.0	23.3	12.1
Female	28.7	25.8	11.1	14.2	12.0
White	18.6	27.0	12.5	23.4	12.5
Urban	8.3	25.6	17.0	39.0	14.1
Rural	31.5	28.8	6.7	3.7	10.9
Male	21.8	21.8	11.2	29.4	12.6
Female	15.5	31.8	13.7	17.8	12.4
Negro	67.7	9.8	3.6	4.3	7.8
Urban	61.9	12.5	2.3	7.1	8.2
Rural	70.6	8.4	4.3	2.8	7.5
Male	73.6	9.4	2.5	3.6	7.2
Female	62.9	10.1	4.5	4.8	8.2
Lamar					
Total	35.9	27.9	6.7	5.0	10.7
Urban	10.5	44.2	5.3	0.0	12.0
Rural	36.2	27.7	6.7	5.0	10.7
Male	39.1	26.8	7.0	5.8	10.5
Female	33.0	28.8	6.4	4.2	10.8

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	31.7	30.2	7.1	5.6	11.2
Urban	10.5	44.2	5.3	0.0	12.0
Rural	32.0	30.0	7.2	5.7	11.1
Male	35.0	29.0	7.5	6.5	11.0
Female	28.6	31.3	6.9	4.8	11.3
Negro	68.3	10.0	3.2	0.0	7.4
Urban	--	--	--	--	--
Rural	68.3	10.0	3.2	0.0	7.4
Male	73.8	8.7	3.1	0.0	6.3
Female	64.0	11.1	3.3	0.0	7.8
Lauderdate					
Total	31.0	28.8	10.8	8.0	11.6
Urban	30.3	28.4	11.8	9.2	11.9
Rural	32.6	29.7	8.5	5.2	11.2
Male	33.2	26.4	10.9	10.2	11.6
Female	29.2	30.7	10.8	6.2	11.7
White	20.4	35.0	13.3	9.7	12.2
Urban	19.6	34.6	14.5	11.3	12.3
Rural	22.1	35.8	10.5	6.3	12.1
Male	22.5	31.7	13.3	12.7	12.2
Female	18.7	37.8	13.2	7.3	12.2
Negro	59.9	11.8	4.1	3.1	8.1
Urban	57.0	12.9	5.0	3.8	8.4
Rural	68.6	8.7	1.4	1.2	6.8
Male	65.5	10.6	3.4	2.8	7.2
Female	56.0	12.7	4.7	3.3	8.5
Lawrence					
Total	36.8	22.4	7.2	4.8	10.4
Urban	--	--	--	--	--
Rural	36.8	22.4	7.2	4.8	10.4
Male	42.8	22.3	7.2	4.8	9.9
Female	31.3	22.4	7.2	4.8	10.6
White	24.9	28.9	8.9	5.6	11.4
Urban	--	--	--	--	--
Rural	24.9	28.9	8.9	5.6	11.4
Male	30.8	28.5	8.5	5.9	11.2
Female	19.4	29.2	9.4	5.4	11.5
Negro	68.7	4.9	2.6	2.5	7.6
Urban	--	--	--	--	--
Rural	68.7	4.9	2.6	2.5	7.6
Male	76.9	4.9	3.6	1.8	6.1
Female	61.9	5.0	1.7	3.1	8.3
Leake					
Total	40.3	22.4	5.9	4.7	10.1
Urban	25.8	32.4	11.3	9.5	12.1
Rural	43.6	20.1	4.7	3.6	9.7
Male	45.3	19.9	6.1	4.5	9.6
Female	35.8	24.6	5.7	4.9	10.5
White	30.5	28.3	7.5	4.8	11.0
Urban	18.3	35.1	13.1	10.4	12.2
Rural	33.8	26.3	6.0	3.2	10.6
Male	34.8	24.3	8.2	5.3	10.7
Female	26.5	31.9	6.9	4.3	11.3

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	60.5	9.9	2.5	4.8	8.4
Urban	59.7	20.1	3.3	5.5	7.9
Rural	60.6	8.6	2.4	4.7	8.4
Male	69.7	9.9	1.5	2.5	7.4
Female	52.6	9.8	3.4	6.7	8.9
Lee					
Total	32.3	25.6	10.5	8.8	11.3
Urban	20.5	29.4	16.3	13.3	12.3
Rural	41.9	22.6	5.8	5.1	10.0
Male	34.1	22.6	12.0	11.4	11.4
Female	30.7	28.3	9.2	6.5	11.3
White	27.1	28.1	12.0	9.5	11.9
Urban	15.2	31.8	18.4	14.6	12.5
Rural	37.2	24.9	6.6	5.2	10.5
Male	28.9	24.7	13.8	12.3	12.0
Female	25.5	31.0	10.4	7.1	11.8
Negro	56.9	14.1	3.5	5.3	8.6
Urban	48.7	16.7	5.0	6.0	9.2
Rural	62.6	12.3	2.4	4.8	8.4
Male	59.9	12.0	3.5	6.9	8.5
Female	54.5	15.8	3.5	4.0	8.8
Leflore					
Total	46.7	19.1	8.9	8.6	9.6
Urban	39.4	22.6	11.2	10.6	10.9
Rural	56.8	14.3	5.7	5.8	8.3
Male	51.2	17.1	8.4	9.9	8.9
Female	43.2	20.7	9.2	7.5	10.0
White	19.7	31.7	15.0	12.7	12.3
Urban	16.0	33.9	17.7	15.1	12.5
Rural	26.5	27.9	10.1	8.6	11.6
Male	23.7	29.1	14.5	15.4	12.3
Female	16.4	33.9	15.4	10.6	12.3
Negro	74.7	6.1	2.5	4.2	6.3
Urban	69.9	8.0	2.7	4.7	6.8
Rural	79.7	4.1	0.3	3.7	5.9
Male	81.2	4.1	1.8	3.8	5.4
Female	69.7	7.6	3.1	4.5	7.0
Lincoln					
Total	36.3	26.1	9.1	6.9	10.9
Urban	29.8	25.8	13.8	12.0	12.1
Rural	40.6	26.2	6.0	3.5	10.2
Male	40.3	23.8	8.6	8.4	10.5
Female	32.9	27.9	9.6	5.6	11.1
White	27.1	31.5	11.2	7.5	12.0
Urban	16.4	32.8	18.3	13.8	12.4
Rural	33.3	30.8	7.1	3.9	11.0
Male	30.7	28.9	10.5	9.6	11.8
Female	24.0	33.8	11.8	5.6	12.0
Negro	64.1	9.4	3.1	5.0	8.1
Urban	58.9	10.8	4.2	8.0	8.5
Rural	69.6	8.0	1.9	1.8	7.4
Male	71.7	7.1	2.5	4.5	6.8
Female	58.3	11.2	3.6	5.4	8.5

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Lowndes					
Total	34.0	26.3	10.4	10.8	11.6
Urban	31.1	26.6	11.9	12.9	12.1
Rural	38.2	25.7	8.2	7.9	10.8
Male	35.4	25.8	12.0	11.8	11.9
Female	32.7	26.6	9.0	10.0	11.4
White	19.5	33.7	13.9	13.8	12.3
Urban	15.1	34.3	16.4	17.4	12.5
Rural	25.3	32.8	10.5	9.0	12.1
Male	20.7	32.1	15.8	15.3	12.4
Female	18.4	35.0	12.2	12.5	12.3
Negro	68.4	8.5	2.2	3.8	7.5
Urban	65.2	10.0	2.4	3.2	7.7
Rural	74.2	5.7	1.8	4.7	7.1
Male	74.0	9.3	2.1	2.5	6.6
Female	64.3	7.8	2.2	4.7	8.0
Madison					
Total	46.8	20.1	7.8	6.4	9.5
Urban	40.2	23.1	6.7	8.0	10.3
Rural	50.9	18.2	8.4	5.4	8.9
Male	51.0	16.5	8.5	6.6	8.9
Female	43.3	23.0	7.2	6.1	10.0
White	21.4	33.3	14.7	10.3	12.2
Urban	19.2	33.4	11.8	12.4	12.2
Rural	22.9	33.3	16.9	8.8	12.3
Male	25.4	28.9	16.0	11.1	12.2
Female	17.9	37.2	13.7	9.6	12.3
Negro	69.3	8.4	1.6	2.9	7.4
Urban	62.5	12.2	1.4	3.3	8.2
Rural	72.9	6.3	1.8	2.7	6.9
Male	75.1	5.0	1.5	2.5	6.4
Female	64.7	11.0	1.7	3.2	8.1
Marion					
Total	40.9	22.5	6.9	6.6	10.2
Urban	30.5	29.0	10.2	11.2	12.0
Rural	46.5	18.9	5.1	4.1	9.4
Male	46.6	21.1	5.9	6.6	9.5
Female	36.0	23.6	7.7	6.6	10.6
White	32.9	26.8	8.2	7.9	11.1
Urban	22.4	32.3	12.7	13.2	12.3
Rural	38.7	23.7	5.7	4.8	10.2
Male	39.1	24.9	6.7	8.3	10.6
Female	27.4	28.4	9.5	7.4	11.5
Negro	64.3	9.9	3.0	3.0	8.0
Urban	56.4	18.3	2.1	4.7	8.6
Rural	68.1	5.8	3.4	2.1	7.6
Male	69.5	9.5	3.5	1.4	6.9
Female	60.1	10.2	2.6	4.2	8.4
Marshall					
Total	53.9	16.1	4.8	6.9	8.7
Urban	40.0	17.1	9.1	18.3	10.9
Rural	58.5	15.7	3.3	3.2	8.5
Male	58.7	13.3	4.1	7.9	8.4
Female	49.7	18.5	5.3	6.0	9.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	29.9	28.7	7.6	7.9	11.3
Urban	20.5	29.9	13.6	17.3	12.4
Rural	33.3	28.2	5.5	4.6	10.8
Male	36.2	23.4	6.7	9.9	10.7
Female	24.2	33.5	8.5	6.1	11.8
Negro	76.2	4.5	2.0	6.0	6.9
Urban	60.9	3.7	3.7	19.5	8.3
Rural	80.7	4.7	1.4	1.9	6.6
Male	80.5	3.7	1.3	6.1	6.3
Female	72.5	5.1	2.6	5.9	7.6
Monroe					
Total	42.4	22.2	6.6	4.8	9.9
Urban	33.6	25.7	9.8	7.1	11.1
Rural	48.5	19.8	4.4	3.3	9.2
Male	45.3	20.1	7.5	5.9	9.7
Female	39.9	24.0	5.9	3.9	10.1
White	35.2	26.3	8.0	5.6	10.8
Urban	23.2	31.2	12.7	8.5	12.1
Rural	43.0	23.0	4.9	3.7	9.8
Male	38.2	23.5	9.1	7.3	10.6
Female	32.6	28.7	7.1	4.1	10.9
Negro	64.5	9.8	2.4	2.3	8.0
Urban	61.8	10.8	2.1	2.9	8.1
Rural	66.6	8.9	2.6	1.8	7.9
Male	69.1	8.9	2.3	1.3	7.2
Female	60.9	10.5	2.4	3.1	8.3
Montgomery					
Total	42.8	20.0	7.4	4.6	9.8
Urban	35.9	22.9	11.0	7.5	10.9
Rural	48.1	17.7	4.6	2.4	9.2
Male	47.5	19.5	7.2	4.9	9.4
Female	38.9	20.3	7.5	4.3	10.1
White	28.7	26.6	10.4	5.3	11.2
Urban	23.5	27.7	15.0	8.5	12.0
Rural	33.0	25.6	6.6	2.7	10.6
Male	34.6	24.3	10.2	6.2	10.9
Female	23.4	28.6	10.6	4.6	11.4
Negro	67.7	8.3	2.0	3.3	7.6
Urban	61.9	12.9	2.6	5.4	8.1
Rural	71.3	5.6	1.6	1.9	7.2
Male	72.0	10.4	1.3	2.4	6.6
Female	64.4	6.8	2.5	3.9	8.1
Neshoba					
Total	39.3	23.0	7.4	5.3	10.3
Urban	28.0	25.8	12.7	11.2	11.9
Rural	44.3	21.7	5.1	2.7	9.6
Male	42.8	20.6	8.4	5.1	9.9
Female	36.2	25.0	6.6	5.6	10.6
White	32.3	26.5	8.5	5.8	11.0
Urban	16.9	30.8	15.5	12.9	12.3
Rural	38.6	24.7	5.7	2.9	10.2
Male	35.8	23.8	9.6	5.6	10.7
Female	29.2	28.8	7.6	5.9	11.2

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	62.2	9.7	3.2	4.6	8.3
Urban	62.2	10.9	3.0	5.9	8.3
Rural	62.2	8.5	3.4	3.3	8.4
Male	66.5	7.6	3.2	3.7	7.7
Female	58.8	11.4	3.2	5.2	8.6
Newton					
Total	36.7	26.9	8.5	5.4	10.8
Urban	24.6	37.6	11.3	8.8	12.2
Rural	39.3	24.6	7.9	4.7	10.4
Male	41.5	23.0	9.8	5.6	10.3
Female	32.5	30.2	7.4	5.2	11.1
White	28.3	31.7	10.7	6.3	11.8
Urban	14.1	42.9	15.9	11.0	12.5
Rural	31.0	29.6	9.7	5.4	11.3
Male	33.4	27.3	12.2	6.4	11.4
Female	23.9	25.6	9.4	6.3	12.0
Negro	62.5	11.5	1.5	2.7	8.2
Urban	48.7	25.5	0.7	3.6	9.2
Rural	66.9	7.0	1.8	2.4	8.0
Male	67.4	9.7	2.3	3.4	7.2
Female	58.4	13.0	0.9	2.2	8.6
Noxubee					
Total	52.9	16.5	7.4	5.5	8.8
Urban	33.7	24.2	11.7	11.0	11.5
Rural	58.4	14.3	6.2	3.9	8.4
Male	56.8	14.0	7.4	6.5	8.4
Female	49.6	18.6	7.4	4.6	9.1
White	19.7	30.6	16.3	10.8	12.2
Urban	14.1	31.8	18.3	17.3	12.5
Rural	22.3	30.1	15.4	7.8	12.1
Male	22.4	25.0	15.7	13.4	12.2
Female	17.3	35.6	16.8	8.4	12.3
Negro	77.9	5.8	0.7	1.5	6.4
Urban	63.7	12.4	1.7	1.3	8.2
Rural	80.5	4.6	0.5	1.5	6.0
Male	84.5	5.1	0.7	1.0	5.1
Female	72.6	6.4	0.7	1.9	7.4
Oktibbeha					
Total	33.4	19.2	10.3	20.5	12.0
Urban	21.0	18.3	13.8	33.3	12.8
Rural	46.7	20.2	6.6	6.7	9.5
Male	34.4	16.2	10.0	26.0	12.1
Female	32.4	21.9	10.7	15.7	11.7
White	16.6	25.5	14.9	27.7	12.7
Urban	8.6	21.7	17.5	39.6	14.2
Rural	28.8	31.3	10.9	9.7	12.1
Male	17.3	20.7	14.2	34.3	12.9
Female	16.0	30.0	15.6	21.5	12.6
Negro	66.9	7.0	1.6	5.0	7.8
Urban	64.9	6.9	1.7	8.5	8.1
Rural	67.9	7.0	1.6	3.2	7.6
Male	73.2	7.1	1.1	4.7	6.9
Female	62.1	6.9	2.1	5.2	8.3

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Panola					
Total	48.3	18.3	7.7	4.7	9.2
Urban	25.4	31.2	10.8	8.7	12.0
Rural	52.7	15.8	7.1	3.9	8.8
Male	52.4	17.1	7.5	4.7	8.8
Female	44.8	19.3	7.8	4.7	9.7
White	26.4	28.0	12.2	6.6	11.6
Urban	16.1	37.2	13.0	9.4	12.3
Rural	29.5	25.2	12.0	5.7	11.2
Male	30.9	25.0	12.0	7.1	11.3
Female	22.5	30.6	12.4	6.1	11.9
Negro	78.4	5.0	1.5	2.1	6.4
Urban	70.6	1.7	0.0	5.0	8.0
Rural	78.9	5.3	1.6	1.9	6.3
Male	83.1	5.8	1.2	1.3	5.7
Female	74.5	4.4	1.7	2.8	7.1
Pearl River					
Total	31.3	27.5	11.6	7.1	11.5
Urban	31.2	29.8	11.7	8.3	12.0
Rural	31.4	26.1	11.6	6.4	11.3
Male	34.6	25.9	12.6	8.5	11.5
Female	28.3	29.0	10.7	5.7	11.5
White	25.9	30.1	13.4	7.9	12.0
Urban	20.1	35.5	15.9	10.6	12.3
Rural	28.5	27.7	12.2	6.7	11.6
Male	28.7	28.9	14.5	9.8	12.1
Female	23.3	31.3	12.3	6.1	12.0
Negro	60.9	13.1	2.2	2.7	8.1
Urban	57.0	16.6	1.8	2.8	8.4
Rural	70.7	4.1	3.1	2.5	6.8
Male	68.4	8.5	1.9	1.6	7.5
Female	54.3	17.2	2.4	3.8	8.5
Perry					
Total	39.0	25.5	7.1	4.1	10.4
Urban	--	--	--	--	--
Rural	39.0	25.5	7.1	4.1	10.4
Male	43.0	22.6	8.3	4.4	10.0
Female	35.3	28.2	6.0	3.8	10.6
White	30.7	30.7	8.5	4.7	11.3
Urban	--	--	--	--	--
Rural	30.7	30.7	8.5	4.7	11.3
Male	35.5	27.6	10.1	5.2	11.0
Female	26.1	33.6	7.0	4.1	11.4
Negro	67.4	7.9	2.2	2.3	7.2
Urban	--	--	--	--	--
Rural	67.4	7.9	2.2	2.3	7.2
Male	69.0	5.1	1.8	1.6	6.0
Female	66.0	10.5	2.6	2.9	8.0
Pike					
Total	39.1	25.6	8.6	6.6	10.6
Urban	30.9	30.5	10.5	9.2	12.0
Rural	44.5	22.3	7.6	4.8	9.8
Male	43.4	21.8	9.7	7.3	10.1
Female	35.5	28.6	7.8	6.0	11.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	24.0	34.1	12.1	8.2	12.1
Urban	20.4	37.2	12.8	11.1	12.3
Rural	27.1	31.5	11.5	5.7	11.8
Male	27.0	29.3	13.6	9.6	12.1
Female	21.5	38.0	10.8	7.0	12.2
Negro	66.0	10.2	2.5	3.7	7.9
Urban	60.5	11.9	3.2	4.1	8.4
Rural	68.3	9.6	2.2	3.6	7.6
Male	73.2	8.3	2.6	3.1	6.8
Female	60.3	11.8	2.4	4.2	8.4
Pontotoc					
Total	44.3	20.5	4.8	4.8	9.7
Urban	34.2	22.7	9.2	12.2	11.2
Rural	47.0	20.0	3.6	2.9	9.3
Male	50.3	18.3	4.0	5.5	9.0
Female	39.0	22.5	5.4	4.2	10.1
White	40.1	22.8	5.3	5.0	10.1
Urban	29.8	25.8	10.2	12.0	11.7
Rural	42.7	22.0	4.0	3.2	9.8
Male	45.3	20.6	4.7	5.7	9.6
Female	35.4	24.8	5.8	4.4	10.5
Negro	70.5	6.4	1.5	3.7	7.9
Urban	59.9	4.3	3.3	13.5	8.3
Rural	73.5	6.9	1.0	0.9	7.7
Male	81.6	4.3	0.0	4.2	6.8
Female	60.4	8.2	2.9	3.3	8.5
Prentiss					
Total	45.2	20.4	7.9	4.6	9.6
Urban	39.4	23.0	10.1	9.4	10.8
Rural	47.8	19.2	6.9	2.5	9.3
Male	46.6	19.2	8.4	5.1	9.5
Female	44.0	21.4	7.5	4.1	9.8
White	43.1	21.6	8.4	4.7	9.9
Urban	34.7	25.2	11.3	9.8	11.4
Rural	46.6	20.1	7.3	2.5	9.4
Male	44.5	20.4	8.8	5.2	9.8
Female	41.8	22.6	8.1	4.2	10.1
Negro	68.4	7.3	2.3	3.6	7.9
Urban	75.1	6.4	1.5	5.8	6.2
Rural	63.7	7.9	2.8	2.1	8.5
Male	70.4	5.9	3.1	4.2	7.7
Female	66.8	8.4	1.7	3.2	8.0
Quitman					
Total	60.4	12.7	5.1	5.8	8.0
Urban	47.6	15.0	10.5	12.1	9.5
Rural	63.3	12.2	3.9	4.4	7.6
Male	64.8	9.9	5.7	6.1	7.2
Female	56.4	15.2	4.5	5.6	8.4
White	37.8	21.5	8.6	9.3	10.6
Urban	17.6	24.2	19.4	18.6	12.5
Rural	42.2	20.9	6.3	7.3	10.0
Male	43.3	18.2	10.4	8.9	10.0
Female	32.9	24.4	7.0	9.7	11.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	83.5	3.7	1.4	2.1	5.4
Urban	76.4	5.7	2.1	6.1	6.5
Rural	85.2	3.3	1.2	1.2	5.1
Male	87.1	1.4	0.9	2.9	4.4
Female	80.4	5.8	1.8	1.5	6.2
Rankin					
Total	36.0	28.5	8.8	5.0	10.9
Urban	16.7	39.9	13.4	7.9	12.3
Rural	42.6	24.7	7.3	4.0	10.0
Male	39.4	24.8	10.0	6.0	10.6
Female	32.9	32.1	7.6	4.0	11.2
White	24.7	34.7	11.1	5.8	12.0
Urban	14.7	40.9	13.8	8.0	12.3
Rural	29.6	31.7	9.8	4.6	11.5
Male	27.8	29.9	12.6	7.5	12.0
Female	21.7	39.3	9.7	4.1	12.1
Negro	67.7	11.3	2.4	2.7	7.7
Urban	61.8	18.4	4.5	3.4	8.3
Rural	67.9	11.0	2.3	2.7	7.7
Male	72.0	10.4	2.9	1.7	6.8
Female	63.6	12.1	1.9	3.6	8.2
Scott					
Total	43.7	21.8	7.1	4.5	9.8
Urban	31.8	26.7	11.6	10.9	11.9
Rural	49.3	19.5	5.0	1.5	9.1
Male	50.1	20.1	7.5	3.9	9.0
Female	38.0	23.3	6.7	5.1	10.3
White	32.4	27.1	9.6	5.2	11.0
Urban	20.0	32.5	15.6	12.5	12.3
Rural	38.1	24.5	6.8	1.9	10.2
Male	39.2	24.7	10.2	4.8	10.5
Female	26.2	29.2	9.0	5.6	11.4
Negro	72.8	8.3	0.7	2.7	7.3
Urban	60.6	12.5	1.8	6.8	8.4
Rural	78.9	6.2	0.2	0.7	6.8
Male	80.1	7.6	0.3	1.4	6.4
Female	66.8	8.9	1.1	3.8	8.1
Sharkey					
Total	52.2	16.4	7.8	7.4	8.7
Urban	--	--	--	--	--
Rural	52.2	16.4	7.8	7.4	8.7
Male	55.1	15.7	7.6	8.8	8.4
Female	49.7	17.1	8.0	6.2	9.0
White	20.5	31.5	15.1	10.8	12.2
Urban	--	--	--	--	--
Rural	20.5	31.5	15.1	10.8	12.2
Male	23.2	29.1	12.9	13.4	12.2
Female	17.8	33.8	17.3	8.4	12.3
Negro	80.0	3.5	1.5	4.4	6.0
Urban	--	--	--	--	--
Rural	80.0	3.5	1.5	4.4	6.0
Male	85.6	2.8	2.5	4.4	4.7
Female	75.5	4.0	0.8	4.5	6.8

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Simpson					
Total	43.2	22.8	6.3	4.9	9.9
Urban	31.1	24.1	10.8	10.0	11.4
Rural	45.4	22.6	5.4	4.0	9.6
Male	49.2	20.0	5.7	5.0	9.1
Female	37.8	25.4	6.7	4.8	10.4
White	34.0	27.7	7.7	5.9	10.9
Urban	29.0	24.3	11.3	10.5	11.5
Rural	35.1	28.5	7.0	4.9	10.8
Male	40.2	24.6	7.0	6.5	10.3
Female	28.2	30.7	8.4	5.4	11.4
Negro	70.1	8.6	2.0	2.1	7.2
Urban	46.9	22.4	7.3	5.7	9.5
Rural	71.9	7.5	1.5	1.8	7.1
Male	75.6	6.5	2.0	0.6	6.5
Female	65.2	10.5	1.9	3.3	8.0
Smith					
Total	40.8	25.6	5.4	3.9	10.1
Urban	--	--	--	--	--
Rural	40.8	25.6	5.4	3.9	10.1
Male	44.4	23.5	6.2	5.0	9.8
Female	37.6	27.6	4.7	3.0	10.4
White	34.8	28.8	6.3	4.5	10.8
Urban	--	--	--	--	--
Rural	34.8	28.8	6.3	4.5	10.8
Male	38.7	26.6	7.3	5.6	10.6
Female	31.2	30.8	5.4	3.4	10.9
Negro	73.6	8.7	0.5	0.8	7.2
Urban	--	--	--	--	--
Rural	73.6	8.7	0.5	0.8	7.2
Male	76.5	6.4	0.0	1.3	6.5
Female	71.0	10.7	1.0	0.3	7.5
Stone					
Total	29.6	26.6	8.9	6.3	11.1
Urban	29.1	26.9	9.9	6.7	11.3
Rural	30.0	26.4	8.2	6.0	11.0
Male	35.1	27.3	8.1	6.0	10.9
Female	24.4	25.9	9.6	6.5	11.3
White	23.9	30.4	10.8	7.1	11.8
Urban	24.3	31.4	12.4	7.3	12.0
Rural	23.7	29.8	9.7	7.0	11.6
Male	28.6	31.1	9.8	7.3	11.7
Female	19.4	29.8	11.7	7.0	11.9
Negro	54.6	9.1	0.7	2.7	8.6
Urban	49.7	6.9	0.0	4.1	9.0
Rural	58.3	10.8	1.2	1.6	8.4
Male	66.4	9.1	0.0	0.0	6.7
Female	44.9	9.2	1.2	4.8	9.4
Sunflower					
Total	54.2	13.8	7.8	6.5	8.6
Urban	41.7	18.4	11.4	10.6	10.4
Rural	60.5	11.5	6.0	4.4	8.1
Male	56.5	12.8	6.7	5.4	8.3
Female	51.9	14.7	8.9	7.5	8.8

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	26.0	24.6	14.8	10.1	11.9
Urban	18.7	29.7	18.1	12.5	12.3
Rural	30.5	21.4	12.7	8.7	11.2
Male	29.9	21.5	12.5	9.5	11.3
Female	22.2	27.6	17.0	10.8	12.2
Negro	79.0	4.2	1.7	3.3	6.0
Urban	68.1	5.1	3.6	8.5	7.2
Rural	83.5	3.8	0.9	1.1	5.5
Male	81.0	4.8	1.5	1.7	5.4
Female	77.2	3.7	1.8	4.7	6.5
Tallahatchie					
Total	59.3	13.4	5.0	5.1	8.2
Urban	41.8	19.3	9.1	9.3	10.2
Rural	63.1	12.1	4.1	4.2	8.0
Male	63.9	13.9	4.2	5.3	7.6
Female	55.3	13.0	5.7	4.9	8.6
White	34.2	24.2	8.9	7.7	10.9
Urban	15.8	32.5	14.8	12.2	12.3
Rural	38.3	22.3	7.6	6.7	10.4
Male	39.6	23.7	7.8	9.2	10.6
Female	29.3	24.6	9.9	6.5	11.1
Negro	85.2	2.3	0.9	2.2	5.4
Urban	71.3	4.7	2.9	4.7	6.3
Rural	88.0	1.8	0.5	1.6	5.3
Male	90.0	3.1	0.4	1.0	4.2
Female	81.2	1.6	1.4	3.1	6.3
Tate					
Total	47.3	19.6	7.1	5.9	9.4
Urban	29.0	25.6	14.7	14.7	12.2
Rural	52.7	17.8	4.9	3.3	8.8
Male	52.8	16.8	8.0	5.3	8.8
Female	42.6	22.0	6.4	6.4	10.0
White	29.6	28.1	11.0	7.8	11.6
Urban	10.0	33.5	20.0	19.5	12.7
Rural	36.7	26.1	7.8	3.6	10.5
Male	35.8	23.8	12.3	7.2	11.0
Female	24.0	32.0	9.9	8.4	12.0
Negro	76.0	5.7	0.8	2.8	6.7
Urban	78.0	5.2	0.9	2.2	6.1
Rural	75.6	5.8	0.8	3.0	6.8
Male	81.9	4.7	0.6	2.1	5.9
Female	71.2	6.5	1.1	3.4	7.2
Tippah					
Total	41.5	25.0	5.7	4.9	10.1
Urban	29.5	28.3	9.8	8.0	11.5
Rural	45.0	24.1	4.4	4.0	9.7
Male	45.3	25.5	6.0	4.3	9.7
Female	37.9	24.6	5.4	5.4	10.4
White	38.0	27.2	6.1	5.0	10.5
Urban	26.8	31.0	10.6	7.9	11.9
Rural	41.2	26.1	4.8	4.2	10.1
Male	41.9	27.7	6.6	4.1	10.2
Female	34.4	26.8	5.7	5.9	10.7

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	63.7	11.4	2.7	4.1	7.7
Urban	43.6	14.0	5.6	8.4	9.7
Rural	71.0	10.4	1.6	2.5	7.2
Male	65.6	12.9	2.0	5.5	6.5
Female	61.8	9.9	3.3	2.7	8.3
Tishomingo					
Total	47.5	22.2	6.2	3.5	9.4
Urban	--	--	--	--	--
Rural	47.5	22.2	6.2	3.5	9.4
Male	50.0	21.4	7.3	4.0	9.0
Female	45.2	23.0	5.2	3.1	9.6
White	47.2	22.4	6.4	3.7	9.4
Urban	--	--	--	--	--
Rural	47.2	22.4	6.4	3.7	9.4
Male	49.7	21.3	7.6	4.1	9.0
Female	44.9	23.4	5.3	3.2	9.7
Negro	54.3	19.7	2.2	0.0	8.6
Urban	--	--	--	--	--
Rural	54.3	19.7	2.2	0.0	8.6
Male	56.4	25.0	1.6	0.0	8.6
Female	52.2	14.3	2.8	0.0	8.8
Tunica					
Total	66.6	10.6	4.4	4.8	7.1
Urban	--	--	--	--	--
Rural	66.6	10.6	4.4	4.8	7.1
Male	72.6	9.1	4.8	4.2	6.0
Female	61.6	11.9	4.0	5.4	8.0
White	32.0	26.0	11.3	9.8	11.6
Urban	--	--	--	--	--
Rural	32.0	26.0	11.3	9.8	11.6
Male	38.9	22.6	12.2	9.5	11.0
Female	26.0	28.9	10.6	10.2	11.9
Negro	85.2	2.4	0.7	2.2	5.3
Urban	--	--	--	--	--
Rural	85.2	2.4	0.7	2.2	5.3
Male	91.0	1.6	0.7	1.2	4.3
Female	80.4	3.0	0.6	2.9	6.2
Union					
Total	40.1	22.5	5.9	5.5	10.1
Urban	33.4	24.3	10.6	10.6	11.3
Rural	43.5	21.6	3.5	2.9	9.7
Male	43.8	20.2	6.0	6.1	9.8
Female	36.8	24.6	5.8	5.1	10.4
White	35.2	24.8	6.4	6.2	10.6
Urban	23.5	28.8	12.4	13.0	12.1
Rural	40.4	23.1	3.8	3.2	10.0
Male	39.6	21.9	6.2	6.8	10.9
Female	31.4	27.5	6.6	5.6	10.6
Negro	74.4	5.8	2.2	1.1	7.5
Urban	71.3	6.5	3.8	1.6	7.6
Rural	78.4	4.8	0.0	0.5	7.4
Male	74.9	7.6	4.2	1.2	6.7
Female	74.0	4.2	0.5	1.1	7.9

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Walthall					
Total	42.9	22.6	5.4	5.3	9.9
Urban	--	--	--	--	--
Rural	42.9	22.6	5.4	5.3	9.9
Male	48.8	20.0	5.7	5.1	9.2
Female	37.7	24.9	5.2	5.5	10.4
White	30.5	29.3	7.0	5.9	11.1
Urban	--	--	--	--	--
Rural	30.5	29.3	7.0	5.9	11.1
Male	34.5	27.3	7.9	6.0	10.9
Female	26.8	31.2	6.3	5.9	11.3
Negro	70.4	7.6	1.9	3.8	7.5
Urban	--	--	--	--	--
Rural	70.4	7.6	1.9	3.8	7.5
Male	81.3	3.3	0.9	2.9	5.8
Female	61.2	11.3	2.7	4.7	8.5
Warren					
Total	35.5	26.2	11.0	9.9	11.5
Urban	36.2	26.0	11.4	10.1	11.5
Rural	34.6	26.5	10.4	9.7	11.5
Male	38.3	22.7	10.8	12.8	11.3
Female	33.3	29.1	11.2	7.5	11.6
White	17.4	34.9	16.2	13.7	12.4
Urban	15.5	35.8	18.2	15.1	12.5
Rural	19.5	33.8	14.0	12.1	12.3
Male	19.5	29.3	15.7	18.5	12.5
Female	15.5	39.8	16.7	9.5	12.4
Negro	65.8	11.8	2.4	3.6	8.1
Urban	62.3	13.6	2.9	3.6	8.3
Rural	74.2	7.3	1.3	3.4	7.2
Male	72.2	10.8	2.0	2.6	7.0
Female	61.0	12.5	2.7	4.3	8.4
Washington					
Total	45.3	20.5	7.9	8.4	9.8
Urban	41.6	22.0	8.9	9.7	10.4
Rural	54.6	16.6	5.3	5.2	8.5
Male	46.6	19.5	8.3	9.6	9.6
Female	44.2	21.2	7.5	7.4	9.9
White	21.1	32.4	13.2	12.7	12.3
Urban	17.6	34.0	14.8	14.2	12.4
Rural	29.9	28.2	9.4	8.9	11.6
Male	23.7	30.1	13.1	14.8	12.3
Female	18.8	34.4	13.3	10.8	12.2
Negro	71.3	7.6	2.1	3.8	6.7
Urban	67.2	9.2	2.6	4.8	7.2
Rural	81.9	3.6	0.7	1.1	5.7
Male	74.2	6.9	2.5	3.3	5.9
Female	69.2	8.2	1.7	4.1	7.2
Wayne					
Total	43.0	20.2	6.3	4.5	9.8
Urban	37.3	19.9	12.1	9.4	10.8
Rural	45.0	20.3	4.2	2.8	9.5
Male	46.0	19.0	5.9	5.1	9.5
Female	40.3	21.2	6.6	4.1	10.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
White	32.1	25.4	8.2	5.2	10.8
Urban	23.9	25.3	16.7	12.2	12.2
Rural	34.8	25.5	5.3	2.9	10.4
Male	35.4	22.9	7.4	6.4	10.6
Female	29.1	27.8	8.8	4.1	11.1
Negro	72.4	6.0	1.3	2.6	6.8
Urban	67.7	7.8	1.7	2.8	7.4
Rural	74.4	5.3	1.1	2.6	6.5
Male	76.9	7.9	1.3	1.4	6.0
Female	68.7	4.6	1.2	3.6	7.5
Webster					
Total	39.6	24.4	6.3	4.4	10.2
Urban	--	--	--	--	--
Rural	39.6	24.4	6.3	4.4	10.2
Male	45.1	22.1	5.6	3.9	9.6
Female	34.6	26.6	6.9	4.8	10.7
White	33.1	27.5	7.3	4.5	10.8
Urban	--	--	--	--	--
Rural	33.1	27.5	7.3	4.5	10.8
Male	38.4	25.2	6.4	3.9	10.3
Female	28.4	29.5	8.1	5.1	11.2
Negro	73.0	8.7	1.1	3.7	6.5
Urban	--	--	--	--	--
Rural	73.0	8.7	1.1	3.7	6.5
Male	79.6	6.0	1.1	4.1	5.1
Female	67.0	11.3	1.1	3.4	7.9
Wilkinson					
Total	58.6	16.5	4.6	4.9	8.3
Urban	--	--	--	--	--
Rural	58.6	16.5	4.6	4.9	8.3
Male	63.4	13.6	4.3	4.7	7.9
Female	54.4	18.9	4.9	5.1	8.7
White	24.6	33.6	9.2	9.7	12.1
Urban	--	--	--	--	--
Rural	24.6	33.6	9.2	9.7	12.1
Male	33.2	28.0	8.4	11.2	11.6
Female	17.1	38.5	9.9	8.4	12.2
Negro	80.5	5.3	1.7	1.8	6.5
Urban	--	--	--	--	--
Rural	80.5	5.3	1.7	1.8	6.5
Male	83.1	4.2	1.6	0.5	5.7
Female	78.3	6.3	1.7	3.0	7.0
Winston					
Total	43.2	23.5	6.5	5.6	10.0
Urban	35.2	29.0	10.6	9.5	11.8
Rural	48.1	20.1	4.0	3.3	9.2
Male	49.6	18.8	6.9	6.2	9.1
Female	37.6	27.5	6.0	5.1	10.6
White	29.7	30.9	8.8	7.4	11.6
Urban	18.4	38.3	14.9	12.2	12.4
Rural	36.4	26.5	5.1	4.6	10.5
Male	35.9	25.6	9.5	8.5	11.1
Female	24.1	35.6	8.1	6.4	12.0

Table 16.-(continued)

Area, Place of Residence and Sex	Percent of Persons 25 Years Old or Older Completing				Median Years Completed
	8 Years or Less	1-4 Years High School	1-3 Years College	4 Years or More College	
Negro	70.8	8.2	1.7	2.0	7.5
Urban	69.5	10.2	1.8	4.0	7.1
Rural	71.6	6.9	1.7	0.7	7.7
Male	78.5	4.2	1.5	1.2	6.0
Female	64.2	11.6	1.9	2.6	8.2
Yalobusha					
Total	47.7	19.3	6.7	5.8	9.3
Urban	38.5	18.6	9.1	6.5	10.3
Rural	52.0	19.6	5.6	5.5	8.9
Male	55.1	15.5	7.0	4.9	8.7
Female	41.5	22.5	6.4	6.5	10.1
White	36.3	25.1	8.8	6.8	10.8
Urban	30.1	22.4	11.7	6.9	11.1
Rural	39.5	26.5	7.3	6.7	10.6
Male	43.8	20.8	9.4	6.6	10.0
Female	30.0	28.7	8.3	6.9	11.3
Negro	73.7	6.1	1.9	3.6	7.3
Urban	64.2	6.9	1.2	5.4	7.5
Rural	77.0	5.8	2.1	3.0	7.2
Male	80.8	3.4	1.5	1.0	6.1
Female	67.7	8.3	2.3	5.7	8.1
Yazoo					
Total	48.8	20.2	6.7	6.8	9.2
Urban	44.2	21.7	6.6	8.8	9.9
Rural	52.0	19.2	6.7	5.4	8.8
Male	53.9	17.3	5.2	7.7	8.7
Female	44.6	22.6	7.8	6.1	9.9
White	25.5	32.1	11.1	10.2	12.1
Urban	15.0	37.2	12.7	13.7	12.4
Rural	31.1	29.4	10.3	8.4	11.7
Male	29.7	26.3	9.0	12.8	11.7
Female	22.0	37.1	12.9	8.1	12.2
Negro	75.6	6.5	1.5	2.9	6.5
Urban	67.8	9.1	1.7	4.9	7.4
Rural	83.0	4.0	1.4	1.0	6.0
Male	82.9	6.6	0.7	1.6	5.4
Female	69.7	6.4	2.2	3.9	7.5

Source: U.S. Bureau of the Census, Summary Tape of 1970, Census of Population, (Mississippi Statate, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tab 42: 1970 Census of Population U.S. Summary, Report PC(1)-C1, Table 75, State Summaries: Alabama, Report PC(1)-C2, Kentucky, Report PC(1)-C19, Mississippi, PC(1)-C26, Tennessee, Report PC(1)-C44 (Washington, D.C.: USGPO), Tables 51.

TABLE 17.-VOCATIONAL TRAINING, VETERAN STATUS AND PUBLIC SCHOOL ENROLLMENT, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Publi	
	Male	Female		Elementary Schools	High Schools
United States					
Total	28.7	21.9	43.1	88.5	90.2
White	29.3	22.0	44.4	87.1	89.3
Negro	23.2	21.0	32.2	96.0	95.8
South					
Total	--	--	40.8	94.1	94.4
White	--	--	--	92.8	93.5
Negro	--	--	--	98.0	97.6
E.S.C.(1)					
Total	21.3	15.7	37.7	94.3	94.5
White	22.6	16.3	40.6	92.9	93.4
Negro	15.4	12.8	24.0	98.4	97.9
Mississippi					
Total	19.3	13.4	34.9	93.9	94.5
White	22.7	16.0	42.7	89.5	91.3
Nonwhite	12.3	8.6	18.6	98.9	98.8
Adams					
Total	16.3	11.4	39.8	83.3	83.1
White	20.1	14.5	49.3	63.7	67.5
Nonwhite	11.3	7.8	27.1	99.0	98.5
Alcorn					
Total	16.8	10.9	35.1	99.8	99.0
White	17.5	11.8	36.6	99.8	98.8
Nonwhite	11.0	3.8	22.9	100.0	100.0
Amite					
Total	20.2	12.2	28.7	74.2	73.2
White	24.7	20.8	37.2	26.8	29.0
Nonwhite	14.7	1.3	17.5	99.2	99.3
Attala					
Total	15.5	8.3	33.2	99.8	99.0
White	18.3	9.0	41.5	100.0	97.9
Nonwhite	10.7	7.2	17.5	99.7	100.0
Benton					
Total	7.9	11.1	25.6	94.5	96.5
White	7.4	12.4	31.7	88.2	92.8
Nonwhite	8.4	8.7	12.9	99.3	100.0
Bolivar					
Total	13.7	11.5	24.8	93.0	94.0
White	17.6	16.4	36.6	76.8	84.6
Nonwhite	10.1	7.9	13.9	98.6	99.1
Calhoun					
Total	23.0	10.4	32.7	95.8	100.0
White	24.4	11.2	36.0	92.9	100.0
Nonwhite	16.8	7.3	19.9	100.0	100.0
Carroll					
Total	15.8	12.3	29.7	93.0	91.9
White	21.2	18.7	41.3	78.2	89.4
Nonwhite	7.8	2.8	15.0	100.0	93.1

(1) East South Central

able 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Public	
	Male	Female		Elementary Schools	High Schools
hickasaw					
Total	10.5	8.3	30.0	97.5	97.4
White	14.7	9.6	36.7	95.8	96.4
Nonwhite	3.8	6.1	15.4	100.0	99.3
hoctaw					
Total	12.5	7.9	31.8	99.6	90.4
White	16.3	9.1	35.5	99.3	85.1
Nonwhite	0.0	4.2	18.4	100.0	100.0
laiborne					
Total	14.7	10.7	24.7	98.0	98.9
White	3.8	11.3	43.8	91.8	95.6
Nonwhite	17.9	10.5	16.2	99.5	100.0
larke					
Total	16.6	3.6	34.8	97.5	94.9
White	21.5	5.3	40.2	95.3	90.4
Nonwhite	6.7	0.0	23.1	100.0	100.0
lay					
Total	15.1	11.0	32.8	93.5	98.9
White	16.7	14.4	45.3	84.6	100.0
Nonwhite	13.2	7.3	16.6	99.5	98.1
oahoma					
Total	15.5	8.3	29.1	89.9	96.2
White	20.2	12.8	50.1	66.2	97.1
Nonwhite	12.8	5.9	14.3	97.8	95.7
opiah					
Total	12.0	10.9	31.4	99.1	98.9
White	14.0	13.9	42.4	98.6	99.0
Nonwhite	10.1	8.2	17.4	99.3	98.8
ovington					
Total	12.7	12.6	34.3	98.6	98.6
White	14.8	16.3	40.9	97.9	97.8
Nonwhite	6.8	0.0	16.5	99.6	100.0
e Soto					
Total	16.2	10.7	36.2	97.3	98.4
White	20.4	12.6	47.6	95.2	97.7
Nonwhite	6.6	6.5	11.0	100.0	99.4
orrest					
Total	21.6	16.6	41.1	92.5	98.6
White	21.9	17.9	44.4	88.9	98.3
Nonwhite	20.7	12.5	27.1	99.7	99.2
ranklin					
Total	22.7	6.9	35.4	88.1	92.6
White	33.3	9.9	42.3	73.7	85.1
Nonwhite	3.5	1.7	21.5	99.7	100.0
eorge					
Total	19.5	14.1	40.0	100.0	98.3
White	19.9	14.0	40.4	100.0	97.9
Nonwhite	15.6	15.1	36.8	100.0	100.0
reene					
Total	19.1	11.6	32.9	100.0	99.2
White	21.2	13.4	35.8	100.0	98.8
Nonwhite	10.7	3.5	21.1	100.0	100.0
renada					
Total	18.3	14.9	35.2	89.5	86.7
White	21.2	15.9	46.6	74.8	76.1
Nonwhite	14.1	13.7	16.3	100.0	100.0

Table 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Public	
	Male	Female		Elementary Schools	High Schools
Hancock					
Total	21.0	13.2	39.7	82.4	95.6
White	20.4	12.5	41.8	81.9	94.6
Nonwhite	26.6	19.4	24.7	85.3	100.0
Harrison					
Total	32.4	19.4	51.5	92.0	94.6
White	32.9	20.6	55.5	90.2	93.8
Nonwhite	28.2	14.4	31.1	98.1	97.9
Hinds					
Total	22.1	20.3	42.1	90.1	91.4
White	26.9	25.0	51.3	81.5	85.8
Nonwhite	14.6	12.5	23.8	99.2	98.9
Holmes					
Total	16.6	13.1	23.3	92.8	93.9
White	16.5	13.4	36.7	66.9	81.3
Nonwhite	16.7	12.9	14.7	98.2	98.4
Humphreys					
Total	14.6	10.5	24.6	92.5	93.3
White	19.7	13.6	40.5	66.1	76.2
Nonwhite	10.8	8.3	12.8	100.0	100.0
Issaquena					
Total	15.9	15.0	24.8	80.6	95.2
White	20.1	28.7	37.7	40.9	87.9
Nonwhite	12.8	5.3	13.9	100.0	100.0
Itawamba					
Total	12.7	7.4	29.9	99.8	99.0
White	13.5	8.0	30.2	99.8	99.0
Nonwhite	0.0	0.0	23.7	100.0	100.0
Jackson					
Total	35.3	18.1	43.9	93.6	95.9
White	37.9	19.7	47.7	93.0	95.8
Nonwhite	19.1	8.8	21.9	96.1	96.7
Jasper					
Total	10.7	10.5	28.6	98.5	98.8
White	10.8	15.2	38.7	99.4	98.7
Nonwhite	10.6	3.6	14.1	97.9	99.0
Jefferson					
Total	10.5	9.2	24.4	97.7	96.5
White	16.1	17.5	42.9	85.3	91.2
Nonwhite	8.4	6.7	15.9	99.5	98.3
Jefferson Davis					
Total	15.4	4.8	30.0	99.4	99.0
White	22.5	6.0	39.2	99.1	100.0
Nonwhite	5.2	3.4	19.0	99.6	98.4
Jones					
Total	19.8	15.2	37.2	98.6	99.3
White	22.7	16.8	40.9	98.2	99.3
Nonwhite	9.4	10.2	23.4	99.4	99.3
Kemper					
Total	4.3	5.1	28.4	92.3	92.1
White	9.7	10.0	40.3	77.1	78.5
Nonwhite	0.0	2.1	16.0	99.1	100.0
Lafayette					
Total	16.7	10.9	26.3	99.1	97.1
White	16.3	13.0	28.9	98.2	94.6
Nonwhite	18.5	4.5	16.6	100.0	100.0

Table 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Public	
	Male	Female		Elementary Schools	High Schools
Lamar					
Total	22.5	8.2	38.0	99.0	98.9
White	24.6	7.6	39.6	98.8	98.7
Nonwhite	5.6	11.8	25.4	100.0	100.0
Lauderdale					
Total	23.3	15.3	39.6	96.2	95.4
White	25.5	16.0	45.5	93.7	93.3
Nonwhite	16.9	13.7	23.9	99.7	99.0
Lawrence					
Total	27.7	11.9	36.0	96.8	96.0
White	30.3	12.7	41.5	94.6	93.1
Nonwhite	13.6	9.6	20.7	100.0	100.0
Leake					
Total	14.6	10.1	31.7	95.7	96.7
White	17.0	12.8	37.9	92.3	94.6
Nonwhite	10.8	5.5	20.8	98.7	98.2
Lee					
Total	17.9	12.0	38.2	99.5	99.1
White	20.4	12.8	41.6	99.4	99.2
Nonwhite	7.0	8.9	22.7	99.7	98.9
Leflore					
Total	15.4	11.9	31.9	94.9	91.6
White	18.7	16.1	50.0	86.3	80.5
Nonwhite	12.8	8.7	14.9	98.6	98.8
Lincoln					
Total	15.2	11.7	34.9	94.5	98.4
White	14.8	11.9	40.0	91.2	97.5
Nonwhite	16.3	11.4	20.7	100.0	100.0
Lowndes					
Total	25.2	15.8	38.7	96.6	99.8
White	29.6	16.5	48.4	94.5	100.0
Nonwhite	15.5	14.4	18.4	99.7	99.4
Madison					
Total	18.1	13.2	27.2	81.0	81.5
White	23.9	20.0	45.4	46.1	46.4
Nonwhite	14.2	8.6	13.2	96.5	96.9
Marion					
Total	16.4	17.9	33.3	93.4	94.1
White	19.9	19.4	38.7	89.8	91.0
Nonwhite	5.0	13.2	18.8	100.0	100.0
Marshall					
Total	11.7	6.6	24.5	86.3	88.5
White	14.6	15.3	37.7	64.8	74.2
Nonwhite	10.9	1.4	14.3	94.0	93.1
Monroe					
Total	12.2	6.5	33.6	99.5	100.0
White	13.8	7.5	39.4	99.3	100.0
Nonwhite	7.2	3.8	16.8	99.8	100.0
Montgomery					
Total	17.2	15.8	27.8	93.3	96.9
White	19.6	17.9	36.1	84.5	92.9
Nonwhite	14.3	13.0	14.2	100.0	100.0
Neshoba					
Total	16.7	14.2	32.2	98.1	98.7
White	18.1	15.5	35.7	98.6	100.0
Nonwhite	7.8	9.4	23.6	96.9	96.0

Table 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Publi	
	Male	Female		Elementary Schools	High Schools
Newton					
Total	21.1	13.5	33.1	99.4	99.0
White	22.5	16.1	38.4	99.0	98.4
Nonwhite	18.3	7.2	17.2	100.0	100.0
Noxubee					
Total	8.9	5.5	25.2	77.2	80.6
White	17.9	13.5	43.4	62.9	66.1
Nonwhite	3.0	1.5	12.6	99.2	98.0
Oktibbeha					
Total	17.6	13.0	25.4	99.9	98.9
White	20.8	16.0	28.2	100.0	98.0
Nonwhite	10.2	7.8	17.4	99.8	100.0
Panola					
Total	11.8	7.1	28.5	97.9	98.2
White	13.6	6.4	38.6	95.3	97.3
Nonwhite	9.6	7.8	15.9	99.6	98.8
Pearl River					
Total	26.0	13.5	42.3	99.6	99.1
White	28.2	15.3	44.6	99.5	98.7
Nonwhite	15.0	4.9	29.3	100.0	100.0
Perry					
Total	27.7	21.4	43.1	99.0	100.0
White	29.4	25.2	47.4	98.6	100.0
Nonwhite	21.9	9.2	29.0	100.0	100.0
Pike					
Total	15.2	15.1	34.8	98.6	99.0
White	18.7	18.0	43.1	96.7	98.7
Nonwhite	10.1	10.7	20.6	100.0	99.3
Pontotoc					
Total	14.9	11.8	33.2	100.0	99.5
White	17.0	12.0	35.4	100.0	99.4
Nonwhite	5.5	10.6	21.4	100.0	100.0
Prentiss					
Total	17.2	7.4	34.1	99.9	99.5
White	19.0	8.3	35.5	99.8	99.4
Nonwhite	0.0	0.0	19.8	100.0	100.0
Quitman					
Total	16.3	10.1	23.7	93.7	88.6
White	19.3	13.9	35.4	83.8	72.3
Nonwhite	13.4	6.5	12.4	98.1	98.5
Rankin					
Total	21.2	17.9	38.3	90.7	92.2
White	21.8	21.3	45.1	87.0	88.9
Nonwhite	19.7	8.0	20.2	98.5	98.7
Scott					
Total	14.9	6.8	28.7	99.8	99.6
White	15.4	7.4	33.6	100.0	99.4
Nonwhite	13.7	5.3	17.3	99.4	100.0
Sharkey					
Total	14.5	9.3	26.1	89.8	88.2
White	18.6	13.1	47.0	48.9	48.1
Nonwhite	12.3	7.0	8.	100.0	100.0
Simpson					
Total	13.6	13.6	33.7	99.2	99.4
White	14.7	16.3	38.1	98.8	100.0
Nonwhite	10.9	7.1	21.5	100.0	98.4

Table 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Public	
	Male	Female		Elementary Schools	High Schools
Smith					
Total	13.7	22.8	26.9	100.0	100.0
White	33.8	24.3	29.0	100.0	100.0
Nonwhite	23.2	17.6	16.7	100.0	100.0
Stone					
Total	25.2	10.1	34.0	97.6	98.9
White	28.5	10.0	37.2	96.5	100.0
Nonwhite	6.0	6.7	20.0	100.0	94.3
Sunflower					
Total	15.8	10.9	25.6	84.6	78.9
White	24.1	15.3	40.2	32.9	45.1
Nonwhite	10.0	8.1	13.8	98.8	99.4
Tallahatchie					
Total	10.0	12.2	23.9	99.5	96.1
White	13.4	17.7	39.5	98.0	89.7
Nonwhite	5.8	6.5	9.2	100.0	100.0
Tate					
Total	11.0	5.5	24.3	99.3	95.6
White	16.3	9.3	29.9	98.1	89.9
Nonwhite	4.9	0.8	15.3	100.0	100.0
Tippah					
Total	12.9	7.0	30.0	99.4	98.7
White	15.1	7.3	30.9	99.3	98.4
Nonwhite	2.7	6.0	24.8	100.0	100.0
Tishomingo					
Total	18.2	14.3	30.9	100.0	99.4
White	18.6	14.7	30.7	100.0	99.4
Nonwhite	0.0	0.0	36.4	100.0	100.0
Tunica					
Total	8.0	5.3	20.3	90.8	85.5
White	11.4	3.7	36.4	50.2	50.8
Nonwhite	6.3	6.1	12.2	100.0	100.0
Union					
Total	13.1	9.2	34.5	99.3	99.0
White	13.7	8.5	36.6	99.2	100.0
Nonwhite	8.5	14.3	20.5	100.0	94.4
Walthall					
Total	12.7	9.3	24.8	99.1	98.2
White	15.2	11.0	30.6	98.4	97.9
Nonwhite	8.8	6.9	13.3	99.6	98.5
Warren					
Total	21.9	16.5	40.1	95.6	94.3
White	25.9	19.9	48.1	93.5	89.8
Nonwhite	15.3	10.9	26.4	95.7	99.7
Washington					
Total	17.7	14.1	32.6	92.9	90.2
White	24.1	19.1	48.4	81.5	79.1
Nonwhite	11.2	9.6	16.3	99.1	98.7
Wayne					
Total	20.1	13.9	35.1	99.9	99.4
White	24.5	15.0	42.5	99.7	99.0
Nonwhite	6.6	11.0	15.5	100.0	100.0
Webster					
Total	8.6	6.8	26.5	100.0	99.2
White	11.2	9.5	30.0	100.0	98.7
Nonwhite	0.0	0.0	10.5	100.0	100.0

Table 17.-(continued)

Area and Race	Percent of Persons Aged 16-64 With Vocational Training and Less Than 3 Years College		Percent of Males 16 Years and Older Who Are Veterans	Percent of Students Enrolled in Publ	
	Male	Female		Elementary Schools	High Schools
Wilkinson					
Total	11.0	9.6	26.8	80.9	81.2
White	14.1	14.1	46.1	29.6	21.6
Nonwhite	9.6	7.6	16.1	98.2	98.7
Winston					
Total	8.9	6.4	31.9	98.3	99.5
White	10.0	8.1	40.5	97.6	100.0
Nonwhite	6.9	3.6	16.0	98.9	99.0
Yalobusha					
Total	18.5	13.6	33.5	99.8	98.5
White	24.7	16.9	43.7	100.0	96.7
Nonwhite	8.8	8.8	13.3	99.6	100.0
Yazoo					
Total	15.9	10.1	29.2	82.1	82.3
White	20.3	13.3	42.9	55.8	60.5
Nonwhite	11.0	6.6	14.3	97.6	99.4

Source; U.S. Bureau of the Census, 1970 Census of Population, Report PC(1)-C1, Tables 71, 74, 88, and 131; Reports PC(1)-C2, PC(1)-C19, PC(1)-C26 and PC(1)-C44 (Washington, D.C.: USGPO), Tables 50 and 51; Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tabs 43, 37, and 38.

TABLE 18.-AGGREGATE INCOME OF PERSONS 14 YEARS OLD AND OLDER, BY SOURCE OF INCOME, RACE AND SEX, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistanc or Welfar
			(in thousands)			
Mississippi						
Total	4,290,176	3,295,919	391,436	103,363	199,893	51,099
White	3,550,058	2,715,978	362,899	94,197	142,883	17,177
Male	3,146,517	2,422,206	348,580	97,715	106,165	18,061
Adams						
Total	81,693	63,104	10,040	476	2,974	855
White	61,776	47,340	9,150	421	1,747	128
Male	62,925	48,859	9,336	441	1,501	224
Alcorn						
Total	57,969	44,894	5,279	2,219	2,758	709
White	54,477	42,015	5,217	2,183	2,487	579
Male	41,050	31,306	4,753	2,119	1,418	259
Amite						
Total	19,059	14,190	1,143	1,095*	1,323	321
White	14,019	10,386	769	973*	902	119
Male	14,064	10,359	961	1,050	813	124
Attala						
Total	31,691	23,930	2,615	917*	2,044	554
White	25,886	19,489	2,425	817*	1,535	206
Male	23,088	17,382	2,289	916	1,179	240

*Income losses reported by some groups.

**Includes other sources of income which are not separately tabulated.

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistance or Welfare
			(in thousands)			
Benton						
Total	10,990	7,102	842	1,432	740	194
White	8,803	5,531	787	1,304	591	101
Male	7,669	4,855	690	1,422	403	76
Bolivar						
Total	74,397	52,462	8,544	3,018	3,818	1,945
White	51,269	36,114	6,536	2,687	1,904	212
Male	51,559	36,290	6,847	2,964	1,995	672
Calhoun						
Total	24,618	16,261	2,805	1,927	1,385	494
White	21,822	13,945	2,778	1,843	1,293	275
Male	17,399	11,194	2,495	1,907	836	180
Carroll						
Total	13,896	9,712	1,134	1,179	820	301
White	10,679	7,197	1,090	1,062	569	122
Male	9,853	6,762	909	1,159	485	104
Chickasaw						
Total	30,152	22,362	2,991	1,185	1,642	475
White	24,536	17,718	2,962	1,006	1,223	224
Male	21,037	15,444	2,598	1,125	794	151
Choctaw						
Total	12,238	8,826	1,040	486	889	349
White	10,473	7,389	994	465	778	230
Male	8,557	6,054	985	465	466	133
Claiborne						
Total	13,903*	10,566	838	42*	874	386
White	7,270	5,549	610	220	402	47
Male	9,518*	7,226	775	22*	439	147
Clarke						
Total	26,544*	20,407	2,707	347*	1,441	374
White	21,938*	16,748	2,507	320*	1,102	118
Male	19,421	14,677	2,455	336	812	154
Clay						
Total	34,819*	26,449	3,524	792*	1,823	497
White	26,341*	19,328	3,331	752*	1,194	99
Male	25,477	19,155	3,331	793	942	156
Coahoma						
Total	63,497	45,753	5,814	2,710	3,465	1,618
White	44,159	31,566	4,882	2,440	1,543	137
Male	42,255	33,045	5,521	2,478	1,643	488
Copiah						
Total	39,512	28,048	3,514	1,584	2,667	700
White	29,146	19,866	3,296	1,469	1,722	193
Male	28,082	19,743	3,191	1,568	1,493	212
Covington						
Total	22,815	16,211	2,312	1,162	1,407	515
White	19,093	13,235	2,251	1,119	1,081	241
Male	16,494	11,939	1,783	1,024	784	186
De Soto						
Total	70,271	59,606	5,078	1,195*	1,983	591
White	61,316	51,942	5,019	959	1,511	153
Male	55,485	46,773	4,864	1,192	1,152	234
Forrest						
Total	127,945	96,990	14,470	566	6,858	580
White	111,548	84,310	13,483	509	5,168	295
Male	93,059	69,738	13,398	524	3,345	176

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistance or Welfare
			(in thousands)			
Franklin						
Total	12,744	9,160	1,379	142	933	232
White	10,416	7,601	1,204	130	639	74
Male	9,808	7,138	1,245	127	565	87
George						
Total	24,092	19,143	1,845	488	1,312	240
White	22,541	17,866	1,843	488	1,170	158
Male	19,703	15,957	1,683	410	783	109
Greene						
Total	11,870	9,246	893	178	848	195
White	10,412	8,047	862	178	708	153
Male	8,950	7,049	771	140	512	77
Grenada						
Total	38,317	28,153	4,688	1,296	1,790	470
White	30,424	21,588	4,563	1,293	1,092	116
Male	26,457	19,096	4,038	1,243	899	161
Hancock						
Total	36,443	28,144	3,763	11,685	2,041	157
White	33,549	25,715	3,631	11,685	1,804	118
Male	28,774	22,261	3,455	11,685	1,211	42
Harrison						
Total	312,062	254,864	24,550	505	9,952	1,027
White	280,178	228,626	23,262	494	8,589	734
Male	245,442	202,078	22,037	402	5,359	491
Hinds						
Total	571,691	456,959	57,418	2,872	16,667	3,276
White	474,773	374,957	54,131	2,293	11,330	607
Male	416,048	331,515	51,996	2,684	7,907	965
Holmes						
Total	26,735	17,548	2,846	1,404	2,360	1,178
White	16,611	11,270	2,177*	888	1,085	161
Male	17,649	11,327	2,676	1,285	1,162	432
Humphreys						
Total	17,839	11,840	1,596	2,177	992	422
White	11,828	7,345	1,214	2,084	499	44
Male	12,136	7,820	1,109	2,112	516	145
Issaquena						
Total	4,456	2,338	114*	1,608	174	117
White	3,246	1,365	110*	1,619	96	11
Male	3,698	1,782	112*	1,596	98	37
Itawamba						
Total	31,579	25,052	2,213	1,038	1,582	467
White	29,800	23,888	2,202	946	1,519	420
Male	21,652	16,770	1,874	965	914	163
Jackson						
Total	222,358	192,316	14,366	371	5,622	506
White	200,837	173,690	13,739	363	4,752	294
Male	180,592	158,123	12,394	295	3,265	180
Jasper						
Total	23,220	17,085	2,139	686	1,620	493
White	17,507	12,899	1,762	617	1,098	134
Male	17,496	12,933	1,991	673	933	181
Jefferson						
Total	9,661	6,944	225*	177	818	493
White	4,693	3,621	129*	166	359	61
Male	6,433	5,152	215	148	480	190

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistance or Welfare
			(in thousands)			
Jeff Davis						
Total	20,269	14,225	2,854	1,115	1,110	301
White	13,885	9,524	2,476	897	637	59
Male	15,277	10,778	2,437	1,085	592	112
Jones						
Total	116,897	88,576	11,684	2,108	6,820	878
White	102,628	76,834	11,157	2,101	5,540	540
Male	88,905	68,242	10,683	1,880	3,706	303
Kemper						
Total	11,649	7,656	1,098	925	961	325
White	8,326	5,366	942	703	654	101
Male	8,503	5,481	963	887	572	113
Lafayette						
Total	46,116	35,694	4,662	1,040	1,803	338
White	39,130	30,737	4,271	101	1,418	130
Male	32,957	25,256	4,191	983	816	131
Lamar						
Total	28,160	22,096	2,301	421	1,631	281
White	26,607	20,962	2,230	419	1,404	197
Male	21,816	17,194	2,116	408	982	104
Lauderdale						
Total	152,065	118,736	13,606	539	7,640	1,232
White	130,114	102,600	12,539	429	5,755	401
Male	111,679	89,366	11,751	506	3,641	346
Lawrence						
Total	19,401	14,795	1,650	395	1,145	313
White	16,081	12,622	1,426	385	834	116
Male	14,773	11,366	1,474	389	626	133
Leake						
Total	26,219	18,005	2,126	2,033	1,824	825
White	21,122	14,302	2,041	1,860	1,346	355
Male	18,938	12,607	1,900	1,983	1,049	337
Lee						
Total	110,369	85,741	12,115	2,031	3,994	866
White	99,081	76,353	11,605	1,978	3,291	515
Male	78,893	60,786	10,947	1,852	1,964	263
Leflore						
Total	75,518	55,663	7,392	1,444	4,059	1,375
White	53,923	38,602	6,973	1,438	2,154	208
Male	52,016	38,737	6,675	1,360	1,871	468
Lincoln						
Total	49,732*	35,882	5,231	1,757*	2,881	478
White	41,312*	30,095	4,222	1,765*	2,186	163
Male	36,644	26,685	4,707	1,761	1,515	135
Lowndes						
Total	104,051	83,017	9,570	1,007	3,805	781
White	87,965	70,053	8,740	884	2,628	215
Male	76,031	60,791	8,490	906	1,789	220
Madison						
Total	46,884	34,271	4,137	2,388	2,417	807
White	31,294	22,011	3,843	1,843	1,360	73
Male	33,355	24,250	3,659	2,036	1,227	248
Marion						
Total	37,470	27,866	2,870	1,155	2,595	507
White	32,221	23,734	2,713	1,106	2,097	255
Male	26,174	19,961	2,788	876	1,425	199

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistanc or Welfar
			(in thousands)			
Marshall						
Total	32,975	24,184	3,224	1,784	1,723	706
White	21,612	15,618	2,500	1,343	880	104
Male	23,518	17,436	2,435	1,746	928	260
Monroe						
Total	65,895	49,225	5,547	1,800*	3,279	711
White	56,408	41,262	5,465	1,708	2,555	273
Male	44,150	33,604	5,103	1,752*	1,719	236
Montgomery						
Total	20,290	14,394	2,298	1,077	1,339	573
White	16,163	11,401	2,132	932	964	169
Male	14,098	9,980	1,794	1,039	724	198
Neshoba						
Total	37,538	26,137	4,718	1,498	2,366	631
White	32,669	22,659	4,310	1,236	2,053	343
Male	27,174	18,209	4,523	1,420	1,393	251
Newton						
Total	35,290	26,147	2,533	1,353	2,445	446
White	30,228	22,250	2,419	1,148	1,968	233
Male	24,681	18,302	2,383	1,119	1,363	156
Noxubee						
Total	18,568*	11,822	1,878*	1,408	1,022	587
White	13,133	7,771	1,830	1,345	498	63
Male	13,158	8,568	1,661	1,345	558	196
Oktibbeha						
Total	55,427	43,198	3,695	1,148	2,023	486
White	47,014	36,393	3,462	1,031	1,364	148
Male	40,972	32,040	3,252	1,130	1,081	163
Panola						
Total	41,101	29,803	4,172	2,183	2,254	632
White	31,414	22,166	3,965	1,920	1,495	168
Male	29,244	21,009	3,457	2,022	1,317	240
Pearl River						
Total	56,563*	44,076	4,718	1,056*	2,566	375
White	51,234*	39,623	4,545	1,046*	2,067	285
Male	44,269	35,043	4,379	1,060	1,379	188
Perry						
Total	13,631	10,483	721	489	992	212
White	11,628	9,037	575	474	787	109
Male	10,124	7,842	680	413	684	60
Pike						
Total	55,148	41,967	5,223	968	4,268	635
White	42,055	32,096	4,150	870	3,088	144
Male	39,206	30,127	4,460	863	2,327	203
Pontotoc						
Total	29,186	20,721	2,032	1,566	1,909	573
White	26,411	18,471	2,018	1,485	1,709	417
Male	20,091	13,608	1,794	1,541	1,119	230
Prentiss						
Total	37,714	28,914	3,436	1,653	1,847	491
White	35,402	26,968	3,363	1,635	1,717	378
Male	25,184	18,175	3,225	1,604	937	191
Quitman						
Total	19,471	13,791	1,190	1,857	1,243	455
White	14,640	10,336	1,056	1,710	636	125
Male	13,855	9,727	858	1,769	682	163

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistance or Welfare
			(in thousands)			
Rankin						
Total	88,010	72,632	5,861	1,699	2,939	533
White	77,031	63,692	5,547	1,588	2,252	213
Male	65,127	53,339	5,349	1,422	1,725	240
Scott						
Total	33,649	25,864	2,859	1,111	2,009	586
White	27,666	21,126	2,669	1,042	1,483	237
Male	24,190	18,120	2,714	1,095	1,117	238
Sharkey						
Total	12,272	8,914	930	535	740	297
White	8,758	6,219	907	497	350	32
Male	8,751	6,327	835	522	414	96
Simpson						
Total	33,689*	25,998	3,085	830*	2,193	467
White	28,016*	21,347	2,992	717*	1,764	217
Male	23,537	17,652	2,813	840	1,250	191
Smith						
Total	23,763	17,072	2,091	1,849	1,317	301
White	21,394	15,082	2,009	1,846	1,187	207
Male	17,262	11,892	1,925	1,726	812	118
Stone						
Total	15,290	11,475	2,070	266	879	133
White	13,284	9,859	1,980	265	699	68
Male	11,863	8,738	1,976	239	535	49
Sunflower						
Total	50,969	36,148	4,382	2,568	2,569	1,285
White	35,449	24,072	3,949	2,415	1,313	153
Male	34,241	24,313	3,435	2,268	1,355	465
Tallahatchie						
Total	25,304	14,899	2,682	2,968	1,798	912
White	18,646	10,466	2,520	2,650	990	198
Male	17,884	10,132	2,038	2,872	1,058	356
Tate						
Total	29,862	21,639	2,791	1,879	1,360	430
White	23,569	16,674	2,754	1,428	928	143
Male	21,744	15,675	2,289	1,819	688	171
Tippah						
Total	27,189	18,497	3,662	1,681	1,480	509
White	24,653	16,548	3,582	1,583	1,300	376
Male	19,077	12,065	3,456	1,677	863	225
Tishomingo						
Total	26,952	20,459	2,468	833	1,641	493
White	26,124	19,825	2,453	816	1,570	440
Male	18,714	13,863	2,064	803	1,016	193
Tunica						
Total	13,529*	8,881	787	1,260*	919	488
White	8,754	5,432	678	1,152	295	24
Male	9,942	6,471	671	1,262	481	199
Union						
Total	37,701	27,387	3,787	1,613*	2,112	693
White	34,920	25,337	3,701	1,585*	1,846	507
Male	26,826	19,168	3,225	1,536	1,120	253
Walthall						
Total	19,597	13,715	1,607	1,327	1,455	331
White	15,662	10,727	1,434	1,160	1,118	110
Male	13,967	9,776	1,489	1,293	867	120

Table 18.-(continued)

County Race and Sex	Total**	Wage and Salary	Nonfarm Self-Employment	Farm Self-Employment	Social Security, Railroad Retirement	Public Assistance or Welfare
			(in thousands)			
Warren						
Total	102,075	84,176	5,769	308	4,346	1,070
White	80,659	68,109	5,279	293	2,399	161
Male	76,542	64,087	5,216	296	2,063	311
Washington						
Total	133,030	103,095	11,621	3,246	5,268	1,731
White	96,573	74,507	10,331	3,008	2,562	185
Male	95,434	75,000	10,346	3,121	2,541	547
Wayne						
Total	26,922*	20,134	3,079	528*	1,470	466
White	22,678*	16,829	2,885	518*	1,107	211
Male	19,193	14,157	2,758	485*	814	208
Webster						
Total	15,761	11,408	1,714	730	1,023	292
White	14,182	10,105	1,687	678	961	182
Male	11,805	8,368	1,633	729	577	109
Wilkinson						
Total	14,636	10,188	1,607	482	1,049	395
White	8,645	6,036	908	318	530	64
Male	10,034	7,402	1,023	465	544	132
Winston						
Total	32,365*	23,363	3,669	989*	2,002	633
White	26,464*	19,099	3,383	928*	1,349	226
Male	24,693	17,341	3,308	948	1,266	275
Yalobusha						
Total	19,765*	13,781	1,492	903*	1,419	451
White	16,116	10,779	1,460	972	1,075	168
Male	13,266*	9,185	1,344	910*	750	177
Yazoo						
Total	44,529*	33,445	4,014	1,806*	2,272	1,056
White	33,046*	26,119	3,786	1,678*	1,229	204
Male	31,705	24,157	3,314	1,742*	1,129	365

Source: U.S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tab. 9.

TABLE 19.-DISTRIBUTION OF FAMILY INCOME, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
nited States							
Total	2.5	17.8	32.5	26.6	16.0	4.6	9590
White	2.0	16.0	32.3	27.8	16.9	5.0	9961
Negro	6.6	34.6	34.8	16.1	6.9	1.0	6067
outh							
Total	3.5	24.4	35.0	22.1	11.5	3.5	8079
White	2.7	20.8	35.3	24.2	13.0	4.0	8721
Negro	7.8	43.2	33.4	11.1	3.9	0.6	4900
.S.C.(1)							
Total	4.6	29.1	35.6	19.8	8.6	2.3	7168
White	3.5	25.1	36.7	22.1	9.9	2.7	--
Negro	10.0	50.2	29.4	8.0	2.1	0.4	--
lississippi							
Total	6.6	35.1	33.6	16.4	6.5	1.8	6068
White	3.8	25.4	38.1	21.4	8.8	2.5	7566
Negro	13.2	58.0	23.1	4.5	1.0	0.2	3200
dams							
Total	7.6	29.8	30.7	21.0	8.4	2.6	6899
White	1.4	13.2	35.3	32.6	13.6	3.9	10,009
Negro	15.9	52.0	24.5	5.4	1.4	0.8	3441
lcorn							
Total	4.9	31.2	40.6	16.5	5.6	1.2	6601
White	4.5	28.8	41.8	17.5	6.1	1.3	6918
Negro	9.2	55.0	28.9	6.2	0.7	0.0	3815
mite							
Total	10.3	46.3	27.5	11.8	3.8	0.3	4222
White	7.4	34.8	34.5	17.2	5.6	0.5	6008
Negro	15.0	64.2	16.6	3.4	0.9	0.0	2600
ttala							
Total	11.3	39.6	30.7	13.7	4.0	0.7	4868
White	6.5	30.7	37.0	19.2	5.6	1.1	6495
Negro	21.4	57.7	17.6	2.6	0.7	0.0	2631
enton							
Total	6.3	48.3	33.1	7.8	2.4	2.1	4500
White	4.2	40.1	39.1	10.9	3.1	2.7	5538
Negro	11.1	67.4	19.1	0.8	0.9	0.8	3057
olivar							
Total	11.8	42.1	25.9	12.7	5.4	2.1	4472
White	6.0	21.5	35.8	22.5	10.4	3.8	8129
Negro	17.1	60.7	17.1	3.9	0.9	0.5	2534
alhoun							
Total	8.1	44.0	33.4	9.4	3.7	1.5	4816
White	6.6	40.4	35.5	11.3	4.5	1.7	5329
Negro	14.3	59.3	24.6	1.1	0.0	0.7	3321
arroll							
Total	7.7	49.0	26.8	11.5	3.6	1.5	4180
White	3.4	37.0	34.9	17.3	5.0	2.4	6260
Negro	14.3	67.5	14.3	2.5	1.4	0.0	2771
hickasaw							
Total	6.4	38.8	33.9	15.0	4.8	1.0	5573
White	5.1	32.0	35.8	19.2	6.7	1.3	6672
Negro	9.6	55.7	29.2	4.7	0.3	0.4	3626

(1) East South Central

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Choctaw							
Total	7.8	43.9	37.6	8.4	2.4	0.0	4861
White	5.9	41.0	39.8	10.3	3.0	0.0	5259
Negro	14.8	55.3	29.0	0.9	0.0	0.0	2852
Claiborne							
Total	10.3	44.2	29.8	9.5	5.3	1.1	4583
White	1.7	21.8	45.3	18.0	12.1	1.2	8000
Negro	15.1	56.9	20.9	4.6	1.4	1.1	3086
Clarke							
Total	9.0	35.5	35.3	15.4	3.3	1.4	5784
White	6.1	28.6	38.9	19.9	4.6	2.0	7125
Negro	16.1	52.2	26.8	4.5	0.4	0.0	3488
Clay							
Total	6.7	31.9	38.6	16.3	4.5	1.9	6228
White	1.3	21.4	43.6	23.3	7.2	3.1	7966
Negro	15.1	48.3	30.8	5.5	0.3	0.0	3506
Coahoma							
Total	10.3	44.7	24.6	13.7	4.5	2.2	4304
White	2.2	18.5	37.3	27.8	9.4	4.8	8824
Negro	16.7	65.4	14.4	2.7	0.7	0.2	2479
Copiah							
Total	7.8	41.2	32.1	14.2	3.2	1.6	5110
White	5.2	30.3	35.2	22.0	4.7	2.7	6792
Negro	11.4	56.7	27.7	3.2	0.9	0.0	3250
Covington							
Total	7.9	37.2	37.4	12.5	4.4	0.6	5589
White	5.0	31.3	42.4	14.8	5.7	0.8	6498
Negro	15.7	53.6	23.8	6.3	0.7	0.0	3439
De Soto							
Total	5.9	27.2	32.9	25.4	7.3	1.3	7703
White	2.5	16.1	37.4	32.8	9.5	1.8	9236
Negro	15.7	59.1	20.0	4.2	1.1	0.0	3246
Forrest							
Total	4.7	31.6	35.1	18.5	7.7	2.5	6756
White	3.0	24.6	37.5	22.5	9.4	3.0	7839
Negro	10.2	57.5	26.2	4.2	1.6	0.3	3639
Franklin							
Total	9.0	42.3	30.1	13.9	4.2	0.6	4800
White	4.7	34.3	35.3	19.4	5.5	0.9	6436
Negro	18.4	60.3	18.6	1.6	1.1	0.0	2551
George							
Total	4.1	30.0	41.6	18.8	4.2	1.4	6617
White	4.5	27.3	42.2	20.0	4.5	1.5	6810
Negro	0.0	56.5	36.1	6.3	1.1	0.0	4548
Greene							
Total	6.7	47.3	35.4	8.8	1.4	0.4	4565
White	4.5	43.3	39.7	10.7	1.4	0.5	5217
Negro	16.2	64.1	17.5	0.7	1.5	0.0	2500
Grenada							
Total	7.3	32.4	33.7	19.4	5.6	1.5	6506
White	3.7	20.2	37.3	28.2	8.2	2.4	8655
Negro	13.6	53.8	27.5	4.0	1.1	0.0	3408
Hancock							
Total	3.6	33.9	36.3	17.3	6.9	2.1	6485
White	3.3	31.2	36.6	19.1	7.5	2.4	6817
Negro	6.5	54.1	32.9	3.9	2.6	0.0	3961

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Harrison							
Total	3.9	25.8	40.5	19.6	8.7	1.6	7227
White	3.1	22.0	41.8	21.7	9.7	1.8	7720
Negro	8.6	48.1	32.7	7.3	2.7	0.6	4349
Hinds							
Total	4.3	24.4	31.2	22.6	13.4	4.2	8268
White	2.0	12.2	30.9	29.9	19.0	6.1	10,702
Negro	8.9	49.5	31.7	7.7	1.9	0.3	4273
Holmes							
Total	15.4	51.2	22.8	7.3	1.8	1.4	3089
White	4.3	33.6	37.3	16.8	4.5	3.5	6429
Negro	22.5	62.5	13.6	1.3	0.1	0.1	2144
Humphreys							
Total	16.2	49.2	22.7	6.9	2.9	2.0	3331
White	7.5	33.4	36.2	13.0	5.9	4.1	6141
Negro	23.0	62.1	12.0	2.0	0.6	0.3	2230
Issaquena							
Total	9.4	45.2	24.5	13.5	5.4	2.1	4409
White	5.9	17.8	30.4	28.9	12.3	4.7	8929
Negro	12.1	66.6	19.8	1.6	0.0	0.0	2855
Itawamba							
Total	5.0	35.8	43.8	11.6	2.6	1.2	5842
White	4.6	35.0	44.7	11.9	2.7	1.0	5941
Negro	12.1	49.2	27.4	6.5	0.0	4.8	3424
Jackson							
Total	2.4	16.5	42.3	26.0	10.5	2.3	8543
White	2.0	14.5	41.7	27.8	11.5	2.5	8918
Negro	4.8	30.3	46.5	13.7	3.8	0.9	6265
Jasper							
Total	10.7	42.0	32.1	11.8	2.8	0.5	4679
White	6.7	32.3	38.4	17.9	4.0	0.8	5971
Negro	17.1	57.4	22.1	2.5	1.0	0.0	3018
Jefferson							
Total	14.0	56.3	20.6	6.5	2.0	0.7	3025
White	3.0	41.2	34.3	15.0	5.2	1.3	5780
Negro	19.4	63.7	13.8	2.3	0.4	0.4	2250
Jefferson Davis							
Total	14.6	39.3	27.4	12.9	3.9	1.9	4555
White	6.5	32.2	35.4	17.1	6.4	2.4	6388
Negro	25.3	48.6	16.9	7.4	0.8	1.1	2449
Jones							
Total	4.7	31.7	38.4	17.5	6.0	1.7	6626
White	3.4	27.2	40.4	19.9	7.2	2.0	7247
Negro	10.7	51.1	29.6	7.5	0.8	0.4	4025
Kemper							
Total	15.3	50.6	24.0	7.8	2.1	0.3	3414
White	10.5	39.6	32.5	13.3	3.5	0.6	4990
Negro	20.6	63.8	14.1	1.2	0.3	0.0	2137
Lafayette							
Total	7.4	36.2	31.2	15.7	7.4	2.0	5820
White	6.2	29.4	32.4	19.7	9.6	2.8	6973
Negro	11.0	56.4	27.8	4.2	0.6	0.0	3613
Lamar							
Total	4.5	39.1	34.8	15.3	5.2	1.1	5704
White	3.4	35.2	37.1	17.1	5.9	1.3	6257
Negro	13.0	70.5	15.6	0.9	0.0	0.0	3179

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Lauderdale							
Total	4.9	31.9	35.7	18.6	7.0	1.9	6613
White	2.7	23.2	39.3	23.4	9.0	2.4	8086
Negro	11.6	57.5	25.0	4.4	1.1	0.4	3548
Lawrence							
Total	11.0	38.7	27.6	14.2	7.8	0.8	5049
Whtie	9.6	29.2	31.9	18.2	10.6	0.5	6604
Negro	14.7	64.3	16.3	3.1	0.0	1.6	2667
Leake							
Total	8.6	47.3	32.3	7.8	2.9	1.1	4298
White	5.7	40.4	38.4	9.9	4.1	1.6	5475
Negro	15.4	64.3	16.7	3.3	0.4	0.0	2658
Lee							
Total	3.8	29.0	37.8	19.5	7.5	2.4	7082
White	3.2	24.2	38.7	22.3	8.8	2.8	7706
Negro	6.5	52.6	33.3	5.8	1.6	0.3	4363
Leflore							
Total	6.7	41.0	28.4	15.7	6.3	2.0	5311
White	2.0	19.5	36.4	26.9	11.5	3.7	8844
Negro	11.7	63.8	19.9	3.8	0.6	0.2	3037
Lincoln							
Total	7.0	37.2	37.0	12.5	5.0	1.3	5634
White	4.5	31.5	40.3	15.6	6.5	1.6	6513
Negro	14.8	54.9	26.8	2.5	0.6	0.5	3451
Lowndes							
Total	5.5	30.1	36.2	18.7	7.4	2.1	6788
White	2.4	19.4	41.3	24.1	10.0	2.8	8164
Negro	13.2	57.4	23.1	5.2	0.8	0.3	3470
Madison							
Total	9.1	41.9	29.4	13.6	3.6	2.4	4887
White	3.6	22.1	36.5	25.1	7.8	5.0	8319
Negro	13.7	58.7	23.4	3.9	0.1	0.3	3329
Marion							
Total	8.1	42.2	32.2	12.4	4.2	0.9	4976
White	5.5	36.3	35.8	15.6	5.5	1.2	5851
Negro	15.8	59.3	21.8	2.7	0.4	0.0	2830
Marshall							
Total	10.1	42.6	30.3	12.0	4.0	1.0	4670
White	4.1	25.1	42.7	19.4	7.0	1.7	6934
Negro	15.5	58.5	19.0	5.3	1.3	0.4	2937
Monroe							
Total	4.9	34.4	41.2	14.2	4.2	1.1	6161
White	3.2	26.5	46.2	17.2	5.4	1.4	7031
Negro	10.5	59.1	25.3	4.6	0.6	0.0	3169
Montgomery							
Total	8.0	42.8	33.9	10.7	3.8	0.8	4892
White	4.2	33.0	41.3	14.6	5.5	1.3	6367
Negro	14.9	61.0	20.1	3.4	0.6	0.0	2521
Neshoba							
Total	6.9	38.7	35.6	14.5	3.1	1.3	5504
White	4.9	34.0	39.2	17.0	3.6	1.4	6240
Negro	12.0	63.0	18.9	3.7	1.2	1.3	3069
Newton							
Total	7.3	38.6	35.3	12.4	5.0	1.5	5426
White	4.8	33.3	38.9	15.3	6.1	1.7	6378
Negro	14.5	56.2	24.0	3.1	1.4	0.8	3446

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Noxubee							
Total	11.3	49.7	25.7	8.4	2.8	2.1	3891
White	4.8	26.3	39.3	18.6	6.4	4.5	6912
Negro	16.5	68.0	15.1	0.3	0.0	0.2	2321
Oktibbeha							
Total	5.9	38.0	29.8	15.3	9.3	1.8	5878
White	4.2	26.6	33.9	20.3	12.8	2.3	7593
Negro	10.0	64.2	20.2	4.0	1.0	0.6	3117
Panola							
Total	9.9	40.2	30.7	13.9	3.8	1.5	4981
White	5.7	25.4	39.6	20.5	6.2	2.5	7205
Negro	15.9	61.0	18.2	4.6	0.4	0.0	2694
Pearl River							
Total	5.5	32.1	36.6	17.0	7.4	1.5	6392
White	4.9	28.5	37.2	19.1	8.6	1.7	6882
Negro	8.9	53.7	33.3	4.0	0.0	0.0	3913
Perry							
Total	6.8	39.4	39.2	12.3	2.1	0.2	5390
White	6.1	35.5	41.0	14.9	2.4	0.2	5866
Negro	10.2	56.8	31.2	0.5	1.2	0.0	3614
Pike							
Total	5.4	42.6	31.2	14.6	4.9	1.2	5284
White	3.0	31.2	36.9	20.4	6.7	1.7	6962
Negro	9.7	63.3	20.8	4.3	1.7	0.4	3487
Pontotoc							
Total	4.8	45.4	35.4	11.2	2.5	0.6	4955
White	4.3	42.6	37.2	12.3	2.9	0.7	5378
Negro	8.3	63.0	24.3	4.5	0.0	0.0	3000
Prentiss							
Total	5.3	36.8	40.2	13.7	3.1	0.9	5898
White	5.0	35.2	41.0	14.6	3.3	1.0	6151
Negro	8.7	53.8	32.3	4.1	1.2	0.0	3871
Quitman							
Total	14.3	48.3	23.0	8.8	4.2	1.6	3631
White	6.9	32.4	35.1	15.4	7.3	2.9	6454
Negro	22.8	66.7	9.0	1.3	0.3	0.0	1921
Rankin							
Total	3.3	23.6	41.4	23.0	7.7	1.0	7629
White	2.2	17.4	42.2	27.7	9.2	1.3	8582
Negro	7.5	48.6	38.4	4.1	1.4	0.0	4448
Scott							
Total	6.1	43.9	34.1	11.5	3.8	0.6	4998
White	4.0	36.7	38.2	15.0	5.2	0.9	6060
Negro	11.2	62.0	23.8	2.7	0.3	0.0	3347
Sharkey							
Total	8.5	49.7	21.0	13.1	6.3	1.5	3800
White	5.0	20.6	35.6	23.3	12.4	3.2	8346
Negro	11.5	74.7	8.5	4.3	1.0	0.0	2536
Simpson							
Total	6.0	40.4	34.1	14.7	4.0	0.8	5418
White	3.9	35.4	37.0	17.9	4.8	1.0	6274
Negro	12.6	55.8	25.3	4.6	1.6	0.0	3301
Smith							
Total	9.9	36.8	34.0	14.7	3.6	1.1	5473
White	9.0	32.5	35.9	17.2	4.1	1.3	6142
Negro	14.2	57.6	24.6	2.4	1.2	0.0	3157

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Stone							
Total	5.3	29.4	42.8	15.4	6.7	0.5	6518
White	5.1	25.6	43.7	16.8	8.2	0.6	7018
Negro	5.9	46.3	39.0	8.7	0.0	0.0	4840
Sunflower							
Total	10.9	46.6	24.1	11.6	5.0	1.9	4024
White	6.3	24.4	34.8	20.4	10.0	4.2	7715
Negro	14.9	66.2	14.6	3.8	0.5	0.0	2523
Tallahatchie							
Total	10.9	51.7	23.1	9.4	2.9	1.9	3361
White	4.5	33.4	37.0	15.9	5.7	3.5	6458
Negro	17.7	70.5	9.0	2.8	0.0	0.0	2069
Tate							
Total	6.3	40.9	29.8	17.1	4.4	1.5	5394
White	3.5	27.4	37.2	23.3	6.5	2.1	7297
Negro	11.1	64.6	17.1	6.1	0.9	0.3	2896
Tippah							
Total	4.7	46.3	36.5	9.0	2.5	1.0	4906
White	4.2	43.8	38.1	9.9	2.7	1.2	5232
Negro	7.6	62.6	25.5	3.4	1.0	0.0	3602
Tishomingo							
Total	6.5	38.5	40.1	11.9	2.4	0.6	5568
White	6.4	37.9	40.7	11.9	2.5	0.6	5646
Negro	9.9	52.3	26.8	11.1	0.0	0.0	4045
Tunica							
Total	10.5	58.6	19.6	6.7	2.9	1.7	2896
White	3.0	30.6	37.5	16.4	7.8	4.7	6670
Negro	14.7	74.5	9.4	1.2	0.2	0.0	2093
Union							
Total	5.4	38.0	37.2	13.2	4.8	1.3	5676
White	3.9	35.4	38.9	14.8	5.6	1.4	6092
Negro	15.6	55.7	25.7	2.4	0.0	0.6	3392
Walthall							
Total	7.9	43.7	33.6	10.2	3.4	1.3	4783
White	4.1	36.4	39.8	13.6	4.5	1.6	5818
Negro	15.9	59.4	20.4	2.9	0.9	0.5	2907
Warren							
Total	4.8	28.0	33.1	21.7	10.4	2.0	7368
White	1.6	13.3	36.6	30.3	15.3	2.8	9792
Negro	10.6	54.4	27.0	6.0	1.5	0.6	3781
Washington							
Total	7.7	37.0	28.8	16.9	7.1	2.5	5752
White	3.7	17.3	34.9	27.0	12.6	4.5	9077
Negro	12.3	59.5	21.7	5.4	0.8	0.4	3254
Wayne							
Total	6.3	42.4	35.4	11.8	3.1	1.1	5188
White	5.5	33.3	40.2	15.3	4.2	1.4	6385
Negro	8.5	66.5	22.7	2.3	0.0	0.0	2916
Webster							
Total	9.0	42.2	36.1	10.5	1.2	1.0	4881
White	6.8	38.4	40.1	12.1	1.4	1.2	5484
Negro	19.4	61.3	16.7	2.7	0.0	0.0	2493
Wilkinson							
Total	9.5	51.2	25.9	10.2	2.2	1.1	3880
White	0.9	33.3	35.0	22.9	5.7	2.1	7460
Negro	14.9	62.1	20.2	2.3	0.0	0.5	2793

Table 19.-(continued)

Area and Race	Percent of Families Having an Income of						Median Family Income
	Less Than $1000	$1000 to 4999	$5000 to 9999	$10,000 to 14,999	$15,000 to 24,999	$25,000 and up	
Winston							
Total	6.5	41.5	32.8	13.1	4.8	1.3	5268
White	5.0	29.2	38.8	18.0	7.1	1.9	7013
Negro	9.9	66.5	20.2	3.2	0.0	0.2	3216
Yalobusha							
Total	8.2	44.6	31.8	10.9	3.3	1.2	4668
White	6.4	37.5	34.1	15.4	4.9	1.7	5635
Negro	12.3	59.9	26.8	1.0	0.0	0.0	3000
Yazoo							
Total	11.1	41.0	26.9	14.4	4.7	1.8	4648
White	4.7	19.8	39.4	24.8	8.0	3.4	8179
Negro	18.7	65.9	12.3	2.3	0.9	0.0	2188

Source: U.S. Bureau of the Census, Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tab 75; 1970 Census of Population, Report PC(1)-C1, Tables 83, 94, 135 and 178; Reports PC(1)-C2, PC(1)-C19, PC(1)-C26, PC(1)-C44 (Washington, D.C.: USGPO), Tables 57.

TABLE 20.-DISTRIBUTION OF INCOME OF PERSONS 14 YEARS OLD AND OLDER, BY RACE AND SEX, UNITED STATES, SOUTH, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area Race and Sex		Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
United States								
Total	Male	10.33	9.02	15.23	11.46	31.69	22.26	6444
	Female	35.81	17.50	19.75	12.83	12.12	2.00	2328
White	Male	9.44	8.56	14.80	10.87	32.13	24.20	6772
	Female	36.24	17.23	19.33	12.73	12.36	2.10	2374
Negro	Male	18.00	12.87	18.87	16.62	28.30	5.35	4067
	Female	31.94	19.92	23.48	13.71	9.92	1.02	2002
South								
Total	Male	11.68	10.46	17.41	14.48	29.66	16.31	5251
	Female	37.34	18.87	19.57	12.92	9.85	1.44	2052
White	Male	10.24	9.40	16.36	13.30	31.51	19.19	5811
	Female	38.24	17.55	18.47	13.42	10.69	1.62	2282
Negro	Male	18.66	15.61	22.38	20.23	20.76	2.37	3241
	Female	33.06	24.93	24.62	10.71	6.08	0.61	1550
Mississippi								
Total	Male	15.23	15.20	20.51	15.78	23.44	9.84	3760
	Female	39.49	11.39	18.39	11.54	6.29	0.67	1582
White	Male	11.89	23.63	17.37	14.67	30.34	14.17	5061
	Female	40.29	11.54	17.63	14.43	8.13	0.95	2126
Negro	Male	22.18	18.57	27.13	18.15	8.90	0.70	2039
	Female	37.85	22.94	19.88	6.02	2.77	0.16	933
Adams								
Total	Male	18.25	11.36	14.13	12.85	27.43	16.00	4697
	Female	44.79	20.84	16.74	8.84	8.08	0.72	1249
White	Male	12.94	6.42	8.73	8.22	37.10	26.58	7757
	Female	47.09	13.31	15.09	12.51	10.87	1.14	1216
Negro	Male	25.13	17.85	21.21	18.93	14.76	2.14	2536
	Female	42.14	29.38	18.61	4.70	4.95	0.25	1267

Table 20.-(continued)

Area Race and Sex		Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Alcorn								
Total	Male	12.00	15.18	19.32	16.81	28.53	8.15	4368
	Female	34.72	22.56	18.48	16.93	6.84	0.48	1667
White	Male	11.37	13.87	18.77	16.19	30.77	9.03	4673
	Female	34.94	21.45	17.49	18.13	7.46	0.55	1702
Negro	Male	17.40	26.34	24.20	22.25	9.33	0.49	2481
	Female	31.85	32.19	26.56	7.52	1.88	0.00	1564
Amite								
Total	Male	16.41	20.91	25.78	14.97	16.94	4.98	3009
	Female	45.31	27.88	13.89	7.43	5.16	0.32	1168
White	Male	12.99	14.81	22.68	15.35	25.99	8.19	3952
	Female	43.75	21.17	15.69	11.39	7.40	0.60	1295
Negro	Male	20.69	28.54	29.65	14.49	5.67	0.97	2054
	Female	47.15	35.85	11.74	2.74	2.51	0.00	1079
Attala								
Total	Male	16.00	19.50	20.71	16.52	20.84	6.43	3236
	Female	40.86	26.45	18.46	9.24	4.65	0.34	1344
White	Male	11.86	14.39	18.24	16.30	29.31	9.88	4789
	Female	38.77	21.90	19.84	12.91	6.04	0.52	1510
Negro	Male	23.04	28.80	25.25	17.11	5.56	0.25	1936
	Female	44.38	34.42	16.09	2.88	2.23	0.00	1163
Benton								
Total	Male	13.91	18.71	29.87	17.74	16.30	3.47	2996
	Female	37.31	26.98	20.70	12.10	2.76	0.15	1468
White	Male	9.64	15.17	28.54	17.78	23.52	5.34	3659
	Female	35.05	21.22	24.09	16.01	3.62	0.00	1704
Negro	Male	21.79	25.23	32.34	17.66	2.98	0.00	2162
	Female	41.41	37.46	14.51	5.02	1.17	0.43	1224
Bolivar								
Total	Male	14.74	24.82	25.39	12.22	15.97	6.87	2656
	Female	32.97	33.07	18.58	9.74	5.01	0.63	1514
White	Male	10.31	17.10	17.83	13.53	26.98	14.04	4519
	Female	34.52	21.15	17.79	16.32	8.98	1.24	1730
Negro	Male	18.33	31.50	31.87	11.07	6.54	0.70	2002
	Female	31.78	42.02	19.23	4.77	2.03	0.17	1432
Calhoun								
Total	Male	13.99	14.22	27.64	23.21	15.42	5.54	3501
	Female	38.76	27.94	15.94	13.15	3.99	0.22	1400
White	Male	11.62	12.43	27.25	23.19	18.49	7.04	3852
	Female	38.41	23.68	17.31	15.76	4.57	0.28	1486
Negro	Male	22.72	20.80	29.10	23.27	4.11	0.00	2394
	Female	39.98	42.67	11.19	4.18	1.97	0.00	1235
Carroll								
Total	Male	17.76	16.57	27.01	16.60	17.39	4.67	2902
	Female	39.26	30.40	12.92	11.25	5.84	0.32	1353
White	Male	12.96	12.79	21.04	16.15	28.77	8.30	4296
	Female	32.12	26.38	15.28	16.89	8.74	0.59	1678
Negro	Male	23.57	21.16	34.26	17.16	3.59	0.28	2248
	Female	47.81	35.22	10.09	4.49	2.38	0.00	1062
Chickasaw								
Total	Male	14.89	14.89	22.00	19.02	23.32	5.91	3769
	Female	34.45	25.74	17.91	15.90	5.80	0.19	1604
White	Male	13.25	11.53	21.22	16.00	29.58	8.42	4461
	Female	31.62	22.92	18.00	19.76	7.41	0.28	1802
Negro	Male	18.46	22.20	23.67	25.59	9.62	0.45	2606
	Female	40.57	31.82	17.57	7.67	2.38	0.00	1296

Table 20.-(continued)

Area Race and Sex		Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Choctaw								
Total	Male	15.14	19.72	23.47	19.69	18.68	3.31	3129
	Female	38.43	26.73	20.94	10.16	3.31	0.43	1433
White	Male	12.75	16.91	21.93	21.88	22.23	4.30	3806
	Female	37.60	24.31	22.68	11.13	3.71	0.57	1510
Negro	Male	23.10	29.06	28.62	12.37	6.85	0.00	1926
	Female	40.94	34.12	15.64	7.19	2.11	0.00	1265
Claiborne								
Total	Male	20.79	18.83	24.36	15.47	15.25	5.29	2780
	Female	45.03	25.79	14.70	8.16	6.05	0.27	1193
White	Male	9.74	10.67	15.38	14.77	35.38	14.05	5924
	Female	33.56	16.34	16.45	19.63	12.96	1.06	2008
Negro	Male	25.59	22.38	28.27	15.78	6.51	1.48	2123
	Female	48.98	29.04	14.10	4.20	3.66	0.00	1035
Clarke								
Total	Male	17.07	16.06	21.51	15.73	24.37	5.25	3379
	Female	37.46	26.08	18.65	12.64	5.02	0.16	1481
White	Male	13.95	12.29	19.39	14.32	32.38	7.69	4466
	Female	38.51	19.86	19.68	15.49	6.22	0.23	1579
Negro	Male	23.77	23.47	26.14	18.85	7.75	0.00	2186
	Female	35.42	38.55	16.60	6.90	2.55	0.00	1378
Clay								
Total	Male	16.00	14.61	18.99	15.89	27.72	6.78	3988
	Female	37.74	26.94	18.33	11.34	5.20	0.46	1452
White	Male	10.24	8.65	13.87	14.40	40.94	11.88	6201
	Female	36.87	18.41	21.59	15.09	7.31	0.73	1710
Negro	Male	23.15	21.98	25.33	17.73	11.34	0.47	2320
	Female	38.62	36.74	14.65	7.07	2.78	0.15	1308
Coahoma								
Total	Male	15.77	22.48	22.75	11.58	19.17	8.24	2896
	Female	33.62	33.03	18.91	7.26	6.41	0.77	1496
White	Male	9.85	12.16	9.60	10.46	38.50	19.42	6726
	Female	36.45	17.52	18.69	13.62	11.81	1.91	1773
Negro	Male	19.87	29.64	31.77	12.25	5.90	0.57	2028
	Female	31.51	43.05	19.17	3.30	2.92	0.06	1430
Copiah								
Total	Male	18.75	16.93	22.74	15.97	18.89	6.72	3073
	Female	38.54	26.75	18.58	11.23	4.54	0.35	1428
White	Male	13.05	12.52	20.71	13.08	28.69	11.96	4491
	Female	38.75	21.77	17.31	14.76	6.83	0.59	1517
Negro	Male	25.72	22.32	25.23	19.53	6.90	0.30	2132
	Female	38.28	32.59	20.00	7.15	1.90	0.07	1360
Covington								
Total	Male	16.54	15.39	21.01	17.46	23.31	6.28	3658
	Female	42.38	24.92	17.08	10.48	4.59	0.55	1304
White	Male	13.50	11.67	19.27	17.53	29.41	8.63	4642
	Female	44.91	20.16	16.58	12.65	5.12	0.58	1249
Negro	Male	24.05	24.57	25.32	17.30	8.32	0.45	2082
	Female	36.28	36.41	18.27	5.25	3.32	0.47	1377
De Soto								
Total	Male	14.51	13.44	14.94	13.24	30.60	13.27	4928
	Female	47.19	20.25	14.11	12.06	5.80	0.59	1139
White	Male	10.44	7.74	10.56	10.47	41.45	19.33	7471
	Female	47.06	14.41	14.26	15.30	8.09	0.87	1204
Negro	Male	23.21	25.62	24.30	19.14	7.41	0.30	2095
	Female	47.47	32.32	13.88	5.22	1.11	0.00	1078

Table 20.-(continued)

Area Race and Sex		Percent of Persons 14 Years Old and Older Having an Income of None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	Median Income
Forrest								
Total	Male	12.56	13.84	21.88	15.06	24.68	11.98	4137
	Female	36.59	21.72	22.02	11.54	7.10	1.03	1616
White	Male	11.04	12.79	20.18	12.65	28.45	14.89	4793
	Female	38.13	19.66	19.63	13.13	8.21	1.25	1603
Negro	Male	18.07	17.82	28.51	24.59	10.39	0.61	2854
	Female	31.26	28.68	29.90	6.31	3.51	0.35	1652
Franklin								
Total	Male	18.48	15.55	21.97	16.68	19.50	7.83	3437
	Female	47.12	27.83	14.14	6.72	3.82	0.38	1104
White	Male	14.25	11.57	17.86	18.34	16.67	11.29	4498
	Female	47.54	23.18	14.64	9.18	4.87	0.60	1106
Negro	Male	26.51	23.13	29.79	13.51	5.84	1.23	2021
	Female	46.57	35.86	13.29	2.32	1.96	0.00	1096
George								
Total	Male	12.64	9.79	23.20	12.18	32.76	9.45	4611
	Female	48.00	21.33	19.29	6.41	4.76	0.21	1094
White	Male	12.28	8.60	22.22	11.94	34.55	10.40	5032
	Female	49.79	19.16	19.29	6.52	5.00	0.23	1011
Negro	Male	14.89	20.00	31.77	14.22	17.78	1.33	3185
	Female	31.39	40.58	19.73	5.60	2.69	0.00	1459
Greene								
Total	Male	15.96	15.15	26.91	16.70	22.95	2.43	3171
	Female	43.92	24.42	21.08	8.47	2.11	0.00	1249
White	Male	13.76	13.55	25.79	17.54	26.64	2.72	3650
	Female	43.53	22.56	21.83	9.58	2.50	0.00	1287
Negro	Male	24.83	21.62	30.74	13.51	8.45	0.84	2187
	Female	46.12	30.43	18.55	4.28	0.63	0.00	1128
Grenada								
Total	Male	14.54	14.94	18.71	16.67	26.69	8.86	4136
	Female	31.65	26.24	20.24	13.35	8.20	0.33	1696
White	Male	10.24	11.03	14.83	13.54	36.00	14.36	5930
	Female	33.43	17.63	19.81	16.19	12.39	0.54	1932
Negro	Male	21.45	21.25	24.97	21.70	10.63	0.00	2539
	Female	28.95	39.32	20.89	9.03	1.82	0.00	1535
Hancock								
Total	Male	13.36	10.48	20.71	16.35	25.87	13.23	4557
	Female	48.07	17.58	19.76	9.07	5.14	0.37	1105
White	Male	12.12	10.04	20.22	15.43	27.27	14.91	4888
	Female	50.99	15.59	17.82	9.64	5.53	0.42	979
Negro	Male	22.24	13.72	24.50	22.24	15.57	1.73	3259
	Female	29.59	30.41	31.83	5.45	2.72	0.00	1671
Harrison								
Total	Male	10.28	10.46	22.06	16.48	28.50	12.21	4730
	Female	44.50	18.39	18.00	10.22	7.77	1.12	1297
White	Male	9.33	9.78	21.50	15.65	29.98	13.77	5025
	Female	46.17	16.75	16.68	10.40	8.72	1.26	1227
Negro	Male	16.31	14.42	25.18	21.72	19.79	2.57	3459
	Female	36.04	26.37	24.58	9.32	3.23	0.46	1527
Hinds								
Total	Male	14.81	11.32	14.82	13.97	25.92	19.16	5054
	Female	36.76	18.32	18.92	13.64	11.09	1.26	1719
White	Male	10.82	8.48	11.07	8.44	32.41	28.78	7457
	Female	36.92	14.41	15.62	16.39	14.91	1.76	1901
Negro	Male	22.30	16.65	21.79	24.30	13.82	1.15	2947
	Female	36.44	25.27	24.81	8.74	4.36	0.37	1536

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Holmes								
Total	Male	19.31	26.45	27.30	11.94	11.37	3.63	22.35
	Female	36.19	32.48	19.88	7.40	3.38	0.68	1425
White	Male	11.79	18.17	20.93	15.55	24.25	9.32	3783
	Female	32.38	23.09	22.61	13.65	6.58	1.70	1763
Negro	Male	24.03	31.64	31.31	9.58	3.34	0.09	1819
	Female	38.38	37.76	18.40	3.75	1.60	0.11	1308
Humphreys								
Total	Male	17.62	27.52	23.57	14.63	12.41	4.24	2309
	Female	40.80	30.70	15.22	8.07	4.84	0.37	1298
White	Male	11.86	15.25	19.07	18.86	25.24	9.72	4305
	Female	42.80	18.50	16.05	13.25	8.65	0.75	1389
Negro	Male	21.72	35.99	26.80	11.69	3.42	0.38	1786
	Female	39.62	38.50	14.73	4.62	2.41	0.13	1268
Issaquena								
Total	Male	7.20	25.31	32.06	13.61	12.48	9.33	2911
	Female	37.70	35.85	17.16	7.55	1.75	0.00	1343
White	Male	7.05	11.84	24.94	16.63	18.64	20.90	4771
	Female	43.60	25.33	21.15	7.05	2.87	0.00	1253
Negro	Male	7.32	36.18	37.80	11.18	7.52	0.00	2273
	Female	33.46	43.42	14.29	7.89	0.94	0.00	1381
Itawamba								
Total	Male	12.65	15.20	21.98	23.26	22.46	4.46	3989
	Female	31.20	25.48	19.68	19.19	4.02	0.43	1736
White	Male	12.39	15.33	21.51	23.00	23.29	4.49	4047
	Female	31.37	25.02	19.41	19.50	4.24	0.46	1742
Negro	Male	17.59	12.70	30.62	28.02	7.16	3.91	3282
	Female	28.26	33.15	24.18	13.86	0.54	0.00	1656
Jackson								
Total	Male	11.33	7.16	11.21	10.45	40.48	19.34	7178
	Female	49.05	16.32	15.34	10.21	8.15	0.91	1054
White	Male	10.22	6.45	10.69	9.49	41.04	22.11	7620
	Female	51.52	14.40	14.10	10.28	8.70	1.00	969
Negro	Male	18.14	11.49	14.33	16.35	37.12	2.56	4854
	Female	35.14	27.15	22.21	9.92	5.13	0.47	1544
Jasper								
Total	Male	21.02	16.36	20.57	16.01	20.00	6.04	3086
	Female	46.94	24.99	16.01	8.79	2.91	0.37	1123
White	Male	16.18	11.84	16.25	17.45	28.18	10.10	4581
	Female	48.15	22.02	14.63	10.97	3.58	0.65	1084
Negro	Male	27.83	22.73	26.68	13.98	8.48	0.31	1975
	Female	45.41	28.81	17.92	5.87	2.00	0.00	1159
Jefferson								
Total	Male	23.56	20.01	28.30	14.37	11.24	2.52	2356
	Female	47.68	31.53	12.15	4.75	3.29	0.60	1071
White	Male	14.32	14.20	23.29	15.60	25.26	7.33	3838
	Female	43.96	17.44	19.81	9.39	7.94	1.44	1346
Negro	Male	27.39	22.42	30.39	13.87	5.41	0.53	2009
	Female	49.16	37.14	9.11	2.91	1.44	0.25	1019
Jefferson Davis								
Total	Male	24.18	16.81	19.83	12.94	19.30	6.94	2793
	Female	50.16	23.02	13.42	8.92	4.02	0.46	995
White	Male	18.38	11.78	17.31	14.74	25.92	11.87	4196
	Female	53.52	14.11	13.94	12.83	4.84	0.76	932
Negro	Male	30.84	22.58	22.72	10.87	11.71	1.28	1838
	Female	46.44	32.89	12.83	4.61	3.10	0.13	1106

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Jones								
Total	Male	16.72	11.69	18.01	14.67	28.99	9.92	4374
	Female	43.38	21.67	18.49	10.47	5.49	0.50	1303
White	Male	14.27	9.69	17.37	13.84	32.37	12.45	5099
	Female	44.58	19.26	17.50	12.09	5.96	0.63	1279
Negro	Male	25.83	19.04	20.32	17.65	16.62	0.55	2415
	Female	39.20	29.84	22.00	4.93	3.94	0.08	1362
Kemper								
Total	Male	20.28	25.92	23.77	13.72	13.66	2.64	2243
	Female	45.46	30.17	14.97	6.45	2.96	0.00	1150
White	Male	13.31	22.01	20.16	15.54	23.67	5.28	3314
	Female	41.47	25.67	17.28	10.70	4.88	0.00	1332
Negro	Male	27.10	28.65	28.07	12.35	3.85	0.00	1800
	Female	49.15	35.07	12.16	2.47	1.15	0.00	1024
Lafayette								
Total	Male	17.34	23.37	21.26	13.40	15.98	8.66	2647
	Female	37.63	22.96	20.00	12.15	6.36	0.91	1538
White	Male	14.84	24.18	20.61	11.74	17.82	10.81	2748
	Female	36.69	22.35	18.52	13.49	7.73	1.21	1594
Negro	Male	25.64	20.87	23.18	20.16	9.59	0.56	2291
	Female	39.75	24.59	24.90	8.29	2.47	0.00	1417
Lamar								
Total	Male	12.90	14.00	25.04	14.59	23.04	10.41	3796
	Female	45.32	23.15	15.97	10.51	4.79	0.27	1200
White	Male	11.53	13.84	23.69	13.64	25.53	11.76	4071
	Female	45.26	22.07	15.82	11.36	5.19	0.31	1212
Negro	Male	23.55	15.26	35.49	21.89	3.81	0.00	2608
	Female	45.76	30.65	16.98	4.60	2.01	0.00	1138
Lauderdale								
Total	Male	13.47	11.31	20.04	16.40	27.32	11.45	4549
	Female	38.36	21.45	20.87	11.80	6.56	0.97	1539
White	Male	10.87	8.57	18.20	14.72	32.39	15.25	5583
	Female	39.72	17.41	18.96	14.39	8.24	1.29	1586
Negro	Male	21.00	19.31	24.92	21.14	12.94	0.67	2708
	Female	35.05	31.15	25.37	5.62	2.58	0.22	1479
Lawrence								
Total	Male	17.40	17.43	20.81	14.31	19.22	10.82	3194
	Female	43.70	24.35	16.07	10.05	5.33	0.49	1259
White	Male	13.97	14.61	18.24	15.02	23.21	14.94	4333
	Female	46.16	19.14	14.92	12.63	6.43	0.70	1200
Negro	Male	25.70	24.26	26.69	12.67	9.71	0.99	1981
	Female	38.07	36.22	18.71	4.18	2.81	0.00	1329
Leake								
Total	Male	16.50	19.22	25.37	17.98	16.57	4.37	2928
	Female	39.75	26.69	19.05	10.49	3.87	0.15	1384
White	Male	11.60	16.26	22.86	18.70	23.83	6.75	3869
	Female	37.36	25.39	18.52	13.85	4.63	0.24	1498
Negro	Male	24.56	25.98	30.14	15.78	3.55	0.00	1979
	Female	43.00	29.51	19.74	5.01	2.75	0.00	1237
Lee								
Total	Male	13.04	11.42	17.01	18.06	29.28	11.20	4952
	Female	31.78	19.88	21.23	18.61	7.85	0.66	1915
White	Male	11.24	10.02	15.01	16.62	33.59	13.52	5587
	Female	32.04	18.64	19.45	20.13	8.93	0.82	1962
Negro	Male	20.97	17.59	25.64	24.45	10.32	1.02	2951
	Female	30.76	25.01	28.74	12.14	3.34	0.00	1769

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Leflore								
Total	Male	15.48	17.11	23.67	15.71	18.50	9.53	3390
	Female	34.20	25.87	21.14	10.90	6.95	0.92	1610
White	Male	10.24	10.76	12.73	13.46	33.08	19.82	6240
	Female	34.06	16.29	20.75	15.54	11.38	1.98	1976
Negro	Male	20.18	22.72	33.45	17.65	5.53	0.47	2415
	Female	34.12	34.04	21.56	7.04	3.20	0.06	1466
Lincoln								
Total	Male	15.87	13.83	18.78	19.14	24.22	8.17	4114
	Female	42.59	22.69	18.06	10.96	5.21	0.50	1323
White	Male	13.16	12.23	17.07	16.10	30.66	10.78	4953
	Female	44.60	18.74	17.37	12.55	6.13	0.62	1284
Negro	Male	23.37	18.28	23.37	27.56	6.50	0.93	2547
	Female	37.23	32.78	19.96	6.96	2.86	0.21	1386
Lowndes								
Total	Male	13.48	11.46	18.10	19.01	26.63	11.33	4580
	Female	34.95	25.83	17.87	14.31	6.38	0.68	1583
White	Male	10.21	8.31	15.55	15.56	34.57	15.82	5941
	Female	36.59	22.65	14.86	17.46	7.49	0.96	1592
Negro	Male	21.44	19.12	24.36	27.42	7.31	0.37	2720
	Female	30.92	33.50	25.01	6.87	3.70	0.00	1569
Madison								
Total	Male	18.53	16.41	21.07	19.81	17.18	7.00	3262
	Female	40.21	25.84	18.32	9.85	5.14	0.65	1376
White	Male	10.78	11.37	15.40	14.15	32.30	16.01	5565
	Female	36.42	16.90	19.86	15.72	9.71	1.39	1795
Negro	Male	24.24	20.14	25.25	23.97	6.03	0.36	2390
	Female	42.70	32.08	19.29	5.80	1.98	0.13	1227
Marion								
Total	Male	18.27	15.94	23.67	16.52	19.11	6.49	3159
	Female	42.83	21.91	20.35	9.91	4.54	0.46	1320
White	Male	15.60	13.38	20.68	17.72	23.91	8.71	4016
	Female	41.91	18.78	20.55	12.63	5.49	0.64	1418
Negro	Male	25.54	22.92	31.49	13.34	6.20	0.52	2075
	Female	44.91	29.56	19.94	3.32	2.28	0.00	1172
Marshall								
Total	Male	20.75	18.46	19.36	18.79	17.51	5.13	2871
	Female	47.95	24.59	12.62	9.30	4.71	0.83	1082
White	Male	13.40	9.76	13.56	19.64	32.58	11.05	5237
	Female	44.07	17.13	13.66	16.68	6.72	1.74	1346
Negro	Male	25.89	24.86	23.65	18.22	6.55	0.82	1969
	Female	50.70	29.89	11.89	4.07	3.27	0.18	985
Monroe								
Total	Male	13.16	15.04	20.07	19.76	25.46	6.51	4137
	Female	31.80	22.89	22.83	18.00	4.05	0.45	1791
White	Male	10.76	11.72	17.76	19.35	31.65	8.75	4934
	Female	31.88	17.98	23.09	21.43	5.00	0.61	1999
Negro	Male	19.72	24.11	26.38	20.86	8.57	0.36	2400
	Female	31.62	35.67	22.16	9.15	1.40	0.00	1515
Montgomery								
Total	Male	15.75	18.46	22.62	17.84	20.23	5.10	3090
	Female	36.82	27.99	17.85	12.56	4.51	0.26	1469
White	Male	10.85	13.23	18.09	20.29	29.39	8.15	4646
	Female	34.96	21.02	18.82	18.33	6.41	0.45	1711
Negro	Male	23.29	26.50	29.60	14.07	6.13	0.41	2011
	Female	39.55	37.92	16.28	4.44	1.82	0.00	1276

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Neshoba								
Total	Male	15.31	14.99	21.22	19.69	23.17	5.61	3801
	Female	38.38	25.06	18.22	12.86	5.19	0.28	1462
White	Male	12.75	12.88	19.36	20.10	27.91	7.00	4386
	Female	36.56	23.90	19.48	14.09	5.68	0.30	1560
Negro	Male	24.48	19.92	32.03	16.85	5.79	0.91	2330
	Female	42.96	30.43	14.86	8.99	2.77	0.00	1231
Newton								
Total	Male	16.57	16.34	21.61	17.42	20.88	7.20	3515
	Female	40.27	22.59	18.32	12.59	5.46	0.77	1427
White	Male	14.63	13.27	20.02	17.22	25.51	9.36	4191
	Female	40.78	20.50	16.44	14.79	6.61	0.90	1446
Negro	Male	21.00	26.39	26.46	18.18	7.14	0.81	2164
	Female	35.98	29.82	24.30	7.04	2.44	0.44	1466
Noxubee								
Total	Male	16.28	22.58	27.35	15.87	13.03	4.89	2686
	Female	36.92	35.55	15.68	8.20	3.05	0.61	1365
White	Male	9.64	10.50	16.69	21.75	29.15	12.28	5116
	Female	35.29	19.20	20.79	17.62	5.52	1.58	1751
Negro	Male	20.61	30.45	34.31	11.88	2.64	0.11	1963
	Female	37.83	43.72	12.57	2.35	1.52	0.00	1266
Oktibbeha								
Total	Male	14.84	20.91	25.79	13.52	15.65	9.30	2853
	Female	36.97	24.78	19.93	11.04	6.47	0.81	1524
White	Male	11.29	21.36	24.28	11.66	19.17	12.24	3117
	Female	35.61	21.50	19.11	14.41	8.21	1.14	1666
Negro	Male	24.21	29.45	30.55	19.23	5.84	0.71	2356
	Female	39.52	31.55	21.62	4.09	3.03	0.18	1332
Panola								
Total	Male	16.13	19.21	24.70	15.81	18.35	5.82	3063
	Female	39.36	26.86	17.88	10.94	4.42	0.52	1395
White	Male	11.65	12.37	18.62	16.15	30.62	10.59	4769
	Female	39.31	19.52	17.64	15.35	7.19	0.99	1545
Negro	Male	21.44	27.14	31.91	15.42	3.89	0.20	2081
	Female	39.50	35.10	18.21	5.92	1.29	0.00	1299
Pearl River								
Total	Male	13.85	13.99	18.59	14.99	25.76	12.82	4409
	Female	44.89	22.82	17.10	8.45	6.45	0.28	1222
White	Male	13.11	12.77	16.88	13.46	28.56	15.22	4903
	Female	47.26	20.74	16.40	8.34	6.92	0.34	1130
Negro	Male	17.64	20.25	27.32	22.87	11.59	0.32	2769
	Female	33.75	32.84	20.25	8.98	4.18	0.00	1495
Perry								
Total	Male	17.08	12.65	22.09	21.27	22.87	4.04	3779
	Female	44.61	24.92	15.02	11.51	3.69	0.24	1216
White	Male	15.89	10.64	19.79	20.84	27.59	5.25	4366
	Female	46.26	22.57	14.60	11.72	4.52	0.32	1166
Negro	Male	21.01	19.33	29.69	22.69	7.28	0.00	2460
	Female	39.72	32.46	15.79	10.91	1.13	0.00	1317
Pike								
Total	Male	17.26	12.37	22.15	18.93	22.07	7.23	3789
	Female	40.65	21.82	21.00	11.04	4.98	0.51	1427
White	Male	11.80	9.68	19.65	16.52	31.17	11.17	5047
	Female	40.00	18.10	19.89	14.38	6.92	0.71	1552
Negro	Male	25.81	16.59	26.05	22.70	7.80	1.05	25.60
	Female	41.71	27.34	22.72	5.99	2.04	0.20	1301

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	Median Income
Pontotoc								
Total	Male	11.94	19.87	24.40	19.83	20.09	3.86	3199
	Female	33.99	26.86	19.47	15.47	4.10	0.12	1596
White	Male	10.81	16.90	25.09	19.61	22.98	4.62	3632
	Female	34.57	24.42	19.73	16.76	4.37	0.14	1632
Negro	Male	17.16	35.11	21.11	21.11	5.52	0.00	1935
	Female	30.33	40.19	18.22	8.64	2.63	0.00	1489
Prentiss								
Total	Male	13.69	16.57	21.95	21.61	21.58	4.60	3746
	Female	30.24	22.10	20.86	22.38	4.22	0.20	1894
White	Male	12.84	15.91	21.82	21.77	22.61	5.07	3902
	Female	30.24	21.18	20.81	23.15	4.38	0.23	1933
Negro	Male	22.00	23.07	23.21	20.03	11.68	0.00	2551
	Female	30.28	20.38	21.23	15.57	2.64	0.00	1651
Quitmen								
Total	Male	18.35	25.39	25.37	12.98	12.43	5.47	2369
	Female	42.73	30.66	13.28	8.82	4.10	0.42	1236
White	Male	12.51	16.28	18.95	17.94	23.45	10.86	4132
	Female	44.04	18.45	13.38	15.82	7.42	0.89	1318
Negro	Male	23.62	33.82	31.35	8.54	2.32	0.35	1780
	Female	41.53	41.84	13.22	2.31	1.09	0.00	1202
Rankin								
Total	Male	21.12	11.48	14.40	14.10	29.37	9.51	4337
	Female	44.61	16.82	18.31	13.42	6.21	0.62	1319
White	Male	16.10	8.29	12.00	12.45	38.27	12.89	6110
	Female	44.04	14.04	17.25	15.72	8.18	0.76	1425
Negro	Male	34.23	19.91	20.77	18.37	6.13	0.56	1792
	Female	46.04	24.23	21.18	7.40	1.03	0.11	1161
Scott								
Total	Male	17.40	13.65	23.40	22.51	17.63	5.41	3600
	Female	42.27	20.63	19.74	12.96	4.26	0.13	1374
White	Male	14.71	11.46	19.52	22.52	24.01	7.77	4349
	Female	42.56	17.48	20.04	14.36	5.45	0.11	1425
Negro	Male	23.25	18.74	32.44	22.56	3.01	0.00	2493
	Female	41.69	27.70	19.11	9.74	1.60	0.16	1300
Sharkey								
Total	Male	11.01	24.89	29.35	10.12	18.34	6.29	2850
	Female	35.46	35.76	13.05	8.52	6.56	0.65	1406
White	Male	8.06	9.99	17.70	13.50	35.94	14.81	6000
	Female	39.78	16.94	11.79	18.35	11.47	1.66	1603
Negro	Male	13.19	35.88	37.94	7.63	5.36	0.00	2046
	Female	32.27	48.22	13.95	2.16	3.41	0.00	1368
Simpson								
Total	Male	19.81	11.59	22.36	20.17	20.07	6.00	3582
	Female	41.06	21.51	17.70	14.12	5.04	0.55	1412
White	Male	16.62	9.59	19.44	19.59	26.72	8.03	4382
	Female	41.37	19.24	17.43	15.03	6.38	0.55	1442
Negro	Male	27.86	16.63	29.73	21.64	3.28	0.86	2292
	Female	40.33	27.04	18.39	11.91	1.75	0.57	1357
Smith								
Total	Male	15.75	17.35	23.28	15.71	21.15	6.77	3330
	Female	43.36	21.59	18.92	11.31	4.44	0.38	1305
White	Male	14.75	16.06	21.51	15.36	24.04	8.09	3686
	Female	43.75	18.93	18.97	12.91	4.99	0.46	1326
Negro	Male	19.12	23.63	31.23	17.58	7.85	0.06	2401
	Female	41.40	33.76	18.50	4.30	2.05	0.00	1255

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Stone								
Total	Male	13.20	14.22	21.83	15.78	27.46	7.50	4074
	Female	41.90	22.97	18.93	11.01	5.18	0.00	1353
White	Male	12.62	13.08	20.74	13.12	31.47	8.96	4772
	Female	44.47	21.17	17.07	12.12	5.16	0.00	1261
Negro	Male	15.81	18.12	26.65	27.18	10.83	1.42	3085
	Female	32.53	29.95	26.09	6.92	4.51	0.00	1583
Sunflower								
Total	Male	19.29	25.35	23.44	13.05	13.87	5.01	2344
	Female	34.24	32.87	15.89	10.15	6.14	0.71	1476
White	Male	14.41	17.47	15.78	15.71	25.35	11.29	4167
	Female	33.81	19.60	16.18	18.26	10.55	1.60	1814
Negro	Male	22.99	31.53	29.42	10.90	5.05	0.12	1857
	Female	34.46	42.58	15.79	4.14	2.96	0.07	1365
Tallahatchie								
Total	Male	14.89	25.40	29.01	11.94	13.46	5.29	2582
	Female	38.79	31.56	18.11	6.57	4.26	0.71	1353
White	Male	11.57	12.97	20.57	18.35	25.66	10.90	4364
	Female	41.42	16.79	20.75	12.88	6.58	1.58	1502
Negro	Male	17.89	36.45	36.45	6.08	2.88	0.25	1881
	Female	36.40	43.78	15.96	1.48	2.38	0.00	1311
Tate								
Total	Male	17.52	16.67	19.99	17.77	20.80	7.23	3370
	Female	42.55	26.31	15.47	9.83	5.10	0.74	1280
White	Male	14.46	11.18	14.90	16.91	30.92	11.62	5130
	Female	41.00	19.80	16.90	14.27	7.06	0.97	1448
Negro	Male	22.07	24.83	27.56	19.05	5.79	0.70	2173
	Female	44.59	35.23	13.55	3.80	2.42	0.43	1154
Tippah								
Total	Male	14.60	15.30	24.69	23.38	17.70	4.33	3474
	Female	37.49	24.48	17.40	15.53	4.87	0.24	1511
White	Male	14.12	15.22	23.35	23.48	18.74	5.09	3662
	Female	37.24	23.02	17.07	17.03	5.37	0.28	1554
Negro	Male	17.45	15.88	32.49	22.98	11.18	0.00	2782
	Female	39.42	33.14	19.07	6.51	1.86	0.00	1319
Tishomingo								
Total	Male	12.81	16.47	24.28	18.57	23.41	4.47	3651
	Female	36.12	24.05	18.30	16.76	4.37	0.39	1577
White	Male	12.56	16.47	23.67	19.15	23.57	4.58	3715
	Female	36.78	23.23	18.13	16.89	4.55	0.41	1569
Negro	Male	18.67	16.44	38.67	4.89	19.12	2.22	3078
	Female	20.82	43.27	22.04	13.88	0.00	0.00	1674
Tunica								
Total	Male	16.40	25.74	32.84	10.60	9.22	5.20	2365
	Female	37.25	35.52	17.29	6.29	2.99	0.65	1359
White	Male	12.31	13.98	19.70	13.99	24.46	15.57	4391
	Female	41.89	16.37	17.14	15.30	7.31	2.00	1495
Negro	Male	18.34	31.30	39.06	9.00	2.00	0.29	2014
	Female	35.01	44.74	17.36	1.96	0.92	0.00	1335
Union								
Total	Male	10.80	16.08	22.42	20.18	23.43	7.08	4028
	Female	34.96	25.03	19.21	14.48	6.11	0.22	1599
White	Male	9.90	15.48	21.70	18.33	26.45	8.14	4272
	Female	35.52	23.12	18.45	15.53	7.14	0.25	1624
Negro	Male	16.80	20.07	27.17	32.47	3.50	0.00	3004
	Female	31.79	36.61	23.91	7.69	0.00	0.00	1497

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of						Median Income
		None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	
Walthall								
Total	Male	18.06	17.25	21.75	17.43	20.77	4.74	3351
	Female	44.67	22.51	17.92	10.68	3.99	0.21	1233
White	Male	13.47	13.39	18.59	19.17	28.43	6.95	4425
	Female	39.40	20.62	20.72	13.85	5.18	0.24	1508
Negro	Male	26.62	24.44	27.65	14.20	6.50	0.61	1950
	Female	53.38	25.80	13.28	5.38	2.00	0.17	937
Warren								
Total	Male	13.44	13.04	16.62	13.87	27.63	15.40	4885
	Female	37.12	22.35	20.82	10.94	8.07	0.71	1575
White	Male	11.13	8.78	10.21	9.87	36.35	23.67	7358
	Female	40.95	14.19	18.62	13.75	11.40	1.09	1636
Negro	Male	17.03	20.23	27.40	20.56	13.20	1.58	2731
	Female	31.34	34.53	24.19	6.63	3.18	0.13	1540
Washington								
Total	Male	16.58	15.80	19.21	14.68	23.07	10.65	3718
	Female	37.46	25.75	18.86	10.27	6.93	0.73	1482
White	Male	11.13	10.12	12.03	11.04	35.06	20.63	6532
	Female	40.09	14.95	16.86	15.56	11.23	1.32	1648
Negro	Male	21.81	21.75	26.60	18.48	10.81	0.55	2420
	Female	35.00	35.57	20.66	5.46	3.10	0.21	1420
Wayne								
Total	Male	18.61	13.73	22.21	17.73	21.75	5.97	3397
	Female	45.16	22.70	17.95	9.53	4.16	0.50	1202
White	Male	16.94	9.68	19.32	17.26	28.48	8.32	4423
	Female	47.82	18.93	16.70	11.08	4.76	0.72	1096
Negro	Male	22.92	24.07	29.31	18.96	4.73	0.00	2173
	Female	39.52	31.26	20.86	5.63	2.74	0.00	1335
Webster								
Total	Male	16.15	18.15	22.09	18.13	22.48	2.99	3252
	Female	43.53	25.82	16.68	10.32	3.64	0.00	1250
White	Male	14.15	15.87	20.81	18.88	26.58	3.71	3852
	Female	44.25	22.33	17.10	12.23	4.09	0.00	1257
Negro	Male	24.78	27.26	27.70	15.01	5.24	0.00	1925
	Female	40.60	40.08	15.01	2.48	1.83	0.00	1235
Wilkinson								
Total	Male	19.33	19.44	26.32	17.40	13.28	4.24	2706
	Female	36.90	33.86	18.05	6.77	3.88	0.55	1384
White	Male	13.39	9.03	18.60	19.53	28.09	11.36	4799
	Female	32.57	26.27	17.59	14.27	9.32	0.98	1702
Negro	Male	22.64	25.20	30.37	16.28	5.17	0.34	2121
	Female	39.86	37.80	18.35	2.74	0.95	0.30	1264
Winston								
Total	Male	16.58	15.53	22.12	16.52	22.09	7.14	3398
	Female	43.72	24.45	16.97	9.96	4.55	0.36	1256
White	Male	11.99	12.60	18.00	14.92	31.52	10.99	4917
	Female	44.70	20.02	16.50	12.09	6.12	0.57	1263
Negro	Male	24.38	21.12	29.17	19.69	5.33	0.31	2209
	Female	41.38	32.36	17.92	6.47	1.86	0.00	1266
Yalobusha								
Total	Male	13.76	21.19	22.89	21.02	15.09	6.06	3059
	Female	31.79	28.23	22.32	13.04	4.13	0.49	1643
White	Male	9.28	17.55	19.96	21.94	21.85	9.43	4216
	Female	32.51	23.12	22.18	16.47	4.95	0.76	1752
Negro	Male	21.81	27.74	28.15	19.37	2.93	0.00	2030
	Female	30.46	37.51	22.58	6.80	2.65	0.00	1521

Table 20.-(continued)

Area	Race and Sex	Percent of Persons 14 Years Old and Older Having an Income of: None	Less than $1000	$1000-2999	$3000-4999	$5000-9999	$10,000 and over	Median Income
Yazoo								
Total	Male	16.79	20.98	22.07	11.67	20.57	7.93	2896
	Female	39.84	27.79	18.29	7.97	5.02	1.08	1362
White	Male	13.43	11.15	13.46	11.63	35.14	15.20	5908
	Female	41.53	15.76	19.86	13.23	7.52	2.09	1526
Negro	Male	20.35	31.40	31.19	11.70	5.13	0.24	1944
	Female	38.16	39.78	16.73	2.72	2.52	0.08	1298

Source: U. S. Bureau of the Census, 1970 Census of Population, Report PC(1)-D1 (Washington, D.C.: USGPO), Tables 245 and 303; Report PC(1) - 26C, Table 45; Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tab 77.

TABLE 21.-POVERTY CHARACTERISTICS AND INCOME OF PERSONS AND FAMILIES, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families: Below Poverty Level(1)	With Less Than $3,000 In Income	Percent Below Poverty Level: Female Headed Families	Population Aged 65 or Over	Per Capita Income(2)
United States						
Total	21,104,072	10.7	10.3	32.5	26.1	3,139
White	13,967,572	8.6	8.8	25.7	24.1	3,314
Negro	6,715,797	29.9	23.7	53.1	48.7	1,818
South						
Total	10,395,468	16.3	14.9	41.2	34.9	2,699
White	5,834,619	12.2	12.0	30.4	30.8	3,001
Negro	4,560,849	38.4	30.0	60.8	57.3	1,439

(1) These data were computed from Census Summary Tape data which were published by the Bureau of the Census before income data errors were corrected. Corrected data for total county populations may be found in: U.S. Bureau of the Census, County and City Data Book, 1972 (Washington, D.C.: USGPO). Differences between the figures are detailed by race, they are reported here under the assumption that they will be useful. Some assessment of the amount of error can be made from the following: For the data given on Percent of Families Below Poverty--most counties have differences of less than one percentage point. In the counties of Bolivar, Claiborne, Coahoma, Holmes, Humphreys, Leflore, Madison, Noxubee, and Yazoo, figures given for total populations are from 2.1 to 3.5 percentage points above corrected figures; in the counties of Sharkey, Sunflower, Tallahatchie, and Tunica, figures given are from 4.0 to 4.5 percentage points above the corrected ones; for five counties, Itawamba, Pontotoc, Smith, Tishomingo, and Union, total percents given are less than two percentage points below corrected ones. The user may opt to inflate or deflate the percents for each race by the variations given.

Concerning the data on Per Capita Income--For 55 counties, the difference for total populations is less than $15. Counties for which figures given for total populations are understated by more than this are: Bolivar, $22; Carroll, $29; DeSoto, $42; Harrison, $23; Itawamba, $32; Lafayette, $34; Noxubee, $99; Quitmen, $17; Rankin, $22; Sharkey, $18; Simpson, $29; Sunflower, $25; Tishomingo, $22; Tunica, $32; Wayne, $42; Webster, $16. Counties for which figures for total populations are overstated are: Calhoun, $42; Claiborne, $55; Humphreys, $19; Jefferson, $49; Jefferson Davis, $25; Lawrence, $52; Lee, $20; Lincoln, $39; Monroe, $64; Newton, $51; Pontotoc, $47. Users may opt to inflate or deflate figures for the races accordingly.

(2) The Negro Figures for Per Capita Income for Mississippi and Mississippi counties, are actually Non-White figures. However, less than 0.8 percent of the Total Nonwhite population for Mississippi consists of races other than Negro. Therefore, these figures constitute a reasonably accurate base for comparability.

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families		Percent Below Poverty Level		
		Below Poverty Level(1)	With Less Than $3,000 In Income	Female Headed Families	Population Aged 65 or Over	Per Capita Income(2)
E.S.C.(3)						
Total	2,760,902	21.0	19.0	46.6	17.2	--
White	--	15.9	--	--	--	--
Negro	--	47.2	--	--	--	--
Mississippi						
Total	686,962	30.0	25.2	62.1	54.3	1,928
White	201,511	15.5	15.8	36.0	43.3	2,537
Negro	482,482	60.7	47.3	79.2	73.6	894
Adams						
Total	11,680	30.3	22.6	70.2	56.4	2,177
White	1,287	6.9	6.5	25.1	29.6	3,179
Negro	10,358	59.0	44.1	83.3	76.2	1,088
Alcorn						
Total	5,798	21.7	21.5	48.5	55.1	2,138
White	4,254	18.7	19.9	43.2	52.5	2,280
Negro	1,544	49.4	37.4	62.9	75.2	1,091
Amite						
Total	6,214	43.8	39.0	68.0	61.5	1,383
White	1,753	25.0	27.4	31.8	50.3	2,075
Negro	4,461	70.2	57.1	83.6	77.2	703
Attala						
Total	7,936	38.8	33.9	70.2	61.2	1,606
White	2,196	21.0	23.5	42.7	54.8	2,212
Negro	5,700	71.5	55.5	85.3	74.8	727
Benton						
Total	3,238	40.5	34.4	59.6	55.2	1,462
White	1,149	27.3	28.2	44.4	50.1	2,022
Negro	2,089	66.5	48.9	68.2	68.5	688
Bolivar						
Total	22,905	47.1	38.1	77.0	63.0	1,487
White	2,919	16.9	15.6	33.6	35.4	2,685
Negro	19,968	70.4	58.5	84.8	77.0	738
Calhoun						
Total	4,965	32.1	31.8	60.6	57.2	1,685
White	2,448	23.3	28.4	50.7	55.3	2,016
Negro	2,517	66.8	46.4	76.0	70.0	746
Carroll						
Total	4,339	43.4	37.2	71.1	62.8	1,450
White	923	21.2	26.4	49.4	48.7	2,269
Negro	3,416	73.1	53.9	86.5	82.0	657
Chickasaw						
Total	5,509	31.0	27.0	59.6	62.8	1,784
White	2,190	20.7	21.4	47.4	57.4	2,256
Negro	3,319	54.3	40.9	70.4	75.0	931
Choctaw						
Total	3,072	34.5	32.0	63.3	61.7	1,441
White	6,624	25.8	26.4	37.8	58.3	1,716
Negro	1,448	64.1	53.5	93.8	77.9	737
Claiborne						
Total	4,318	45.0	35.5	68.7	66.0	1,408
White	195	8.5	11.5	15.7	34.1	2,867
Negro	4,123	63.5	49.1	81.8	82.9	910

(3) East South Central

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families		Percent Below Poverty Level		
		Below Poverty Level(1)	With Less Than $3,000 In Income	Female Headed Families	Population Aged 65 or Over	Per Capita Income(2)
Clarke						
Total	4,940	32.5	29.1	59.1	64.7	1,771
White	1,754	20.4	22.6	49.3	57.0	2,278
Negro	3,178	59.1	44.5	67.7	78.3	869
Clay						
Total	5,309	26.8	24.0	59.1	48.8	1,861
White	911	9.2	10.6	34.1	31.7	2,782
Negro	4,398	51.2	45.0	73.6	67.7	919
Coahoma						
Total	19,974	46.3	38.1	80.1	59.8	1,565
White	1,375	10.0	10.5	31.6	31.4	3,100
Negro	18,564	72.1	60.0	88.3	74.1	734
Copiah						
Total	9,121	36.0	31.8	62.2	61.2	1,593
White	1,987	18.2	20.8	38.6	49.0	2,350
Negro	7,134	58.2	47.3	72.0	79.4	844
Covington						
Total	4,726	32.2	25.2	52.5	56.9	1,639
White	1,749	19.0	18.1	25.6	47.7	2,035
Negro	2,977	63.4	44.9	77.0	79.4	820
De Soto						
Total	9,994	23.6	18.6	52.0	51.3	1,916
White	2,429	9.6	9.0	31.3	33.3	2,592
Negro	7,565	61.5	45.9	74.6	74.3	671
Forrest						
Total	12,397	23.4	19.7	53.7	42.8	2,203
White	5,477	14.8	14.2	34.5	35.6	2,555
Negro	6,856	52.3	39.3	75.4	62.6	1,135
Franklin						
Total	3,148	39.2	33.9	70.8	62.5	1,596
White	934	21.8	22.9	34.0	53.8	2,127
Negro	2,214	73.8	58.5	88.6	79.2	761
George						
Total	2,727	21.5	21.7	50.9	47.7	1,942
White	2,054	18.6	20.5	48.1	46.7	2,062
Negro	673	47.6	33.3	71.9	54.7	1,039
Greene						
Total	3,373	37.7	31.4	70.4	68.6	1,389
White	2,099	29.3	25.4	55.9	65.0	1,568
Negro	1,274	72.8	58.0	92.3	84.5	761
Grenada						
Total	5,866	28.9	25.2	63.1	57.1	1,931
White	1,290	13.5	13.8	35.1	45.8	2,725
Negro	4,576	53.5	45.1	78.6	71.0	910
Hancock						
Total	3,465	21.2	19.3	44.2	46.5	2,094
White	2,503	18.0	17.4	33.3	42.5	2,251
Negro	962	45.1	35.0	66.3	67.1	1,152
Harrison						
Total	21,646	18.3	15.5	49.6	38.7	2,284
White	12,135	13.1	12.4	33.7	33.6	2,481
Negro	9,409	45.8	34.2	72.2	64.4	1,343
Hinds						
Total	46,241	20.7	15.8	53.6	39.7	2,654
White	7,711	6.7	6.9	22.2	25.9	3,623
Negro	38,448	46.5	34.3	71.4	62.8	1,149

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families Below Poverty Level(1)	Percent of Families With Less Than $3,000 In Income	Percent Below Poverty Level Female Headed Families	Percent Below Poverty Level Population Aged 65 or Over	Per Capita Income(2)
Holmes						
Total	12,880	56.2	49.1	84.0	66.8	1,143
White	1,494	21.6	21.6	53.5	49.8	2,283
Negro	11,386	75.6	66.9	89.3	76.8	613
Humphreys						
Total	8,816	56.3	46.2	78.5	63.9	1,241
White	1,288	23.9	23.0	42.1	35.0	2,316
Negro	7,516	79.6	64.7	86.4	81.6	659
Issaquena						
Total	1,236	43.9	36.5	74.8	64.2	1,628
White	120	14.7	15.4	0.0	20.3	3,108
Negro	1,116	64.7	52.9	81.1	79.4	722
Itawamba						
Total	3,824	23.6	23.6	48.0	57.2	1,816
White	3,407	22.1	22.6	41.0	56.5	1,810
Negro	417	49.4	42.3	70.6	67.9	1,931
Jackson						
Total	10,252	11.5	9.3	49.2	33.9	2,527
White	6,387	9.0	8.0	41.8	33.1	2,725
Negro	3,849	27.6	17.8	62.0	38.3	1,506
Jasper						
Total	7,076	42.0	34.2	70.6	66.0	1,450
White	1,830	23.7	24.2	59.5	51.4	2,036
Negro	5,246	68.0	49.8	75.6	89.5	774
Jefferson						
Total	5,865	59.2	49.7	79.5	74.7	1,030
White	578	27.8	28.5	44.1	49.2	2,070
Negro	5,287	72.7	60.1	89.9	86.2	688
Jefferson Davis						
Total	5,092	39.7	36.3	70.6	66.9	1,574
White	1,202	19.6	21.1	36.1	56.1	2,170
Negro	3,890	63.7	56.3	85.6	80.7	983
Jones						
Total	12,621	23.0	20.7	55.9	51.5	2,073
White	6,075	15.8	16.6	40.1	4.9	2,423
Negro	6,491	51.4	38.5	75.5	73.7	1,007
Kemper						
Total	5,134	50.4	45.1	66.0	65.1	1,126
White	1,014	25.1	30.0	43.9	50.1	1,890
Negro	3,944	75.1	63.0	80.4	84.4	541
Lafayette						
Total	6,161	28.8	24.5	54.6	50.2	1,873
White	2,076	18.1	20.2	37.8	43.4	2,261
Negro	4,085	57.7	37.5	70.1	66.2	891
Lamar						
Total	4,358	27.8	21.7	54.0	54.2	1,861
White	2,997	22.2	18.8	43.1	49.5	2,026
Negro	1,361	72.3	46.0	82.2	74.3	778
Lauderdale						
Total	15,853	24.4	19.8	58.0	46.6	2,257
White	4,710	12.0	12.2	30.5	37.9	2,800
Negro	11,099	57.3	42.3	80.9	66.8	1,048
Lawrence						
Total	4,159	36.6	32.9	61.4	67.6	1,766
White	1,835	24.9	24.1	31.9	57.3	2,154
Negro	2,324	66.9	56.5	78.7	86.6	948

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families Below Poverty Level(1)	Percent of Families With Less Than $3,000 In Income	Percent Below Poverty Level Female Headed Families	Percent Below Poverty Level Population Aged 65 or Over	Per Capita Income(2)
Leake						
Total	6,958	39.1	37.1	65.7	56.7	1,532
White	2,553	26.4	29.2	45.0	54.6	2,032
Negro	3,971	64.4	55.8	81.0	60.5	759
Lee						
Total	9,217	18.7	16.6	47.9	47.4	2,401
White	4,888	13.3	13.4	31.7	44.6	2,713
Negro	4,329	43.2	32.3	72.4	59.2	1,208
Leflore						
Total	17,613	39.7	30.1	68.0	55.1	1,788
White	2,200	13.3	12.0	32.8	33.9	3,059
Negro	15,306	64.3	49.4	80.0	70.9	875
Lincoln						
Total	8,092	30.5	24.5	66.1	55.4	1,889
White	3,288	18.6	18.7	42.7	47.7	2,278
Negro	4,784	63.0	42.3	85.7	74.2	1,016
Lowndes						
Total	12,109	24.5	19.4	63.7	47.1	2,090
White	2,746	10.0	10.2	34.4	33.9	2,628
Negro	9,363	58.5	42.8	78.1	68.1	988
Madison						
Total	13,230	41.9	30.8	72.4	56.6	1,560
White	1,347	12.5	13.9	25.9	32.2	2,754
Negro	11,883	63.5	45.1	83.4	75.1	841
Marion						
Total	8,600	37.7	30.8	62.3	59.6	1,620
White	4,060	26.5	23.4	49.6	49.5	2,019
Negro	4,505	69.0	52.7	77.2	82.5	740
Marshall						
Total	11,682	45.9	33.5	77.0	63.9	1,371
White	1,500	16.2	14.4	41.2	43.7	2,336
Negro	10,182	69.4	50.8	86.4	78.7	779
Monroe						
Total	8,900	24.1	22.7	52.9	51.9	1,920
White	3,270	13.3	14.6	25.0	43.8	2,374
Negro	5,630	55.1	48.1	76.8	70.9	886
Montgomery						
Total	5,271	38.3	34.7	74.2	62.8	1,564
White	1,498	20.5	22.1	45.8	50.3	2,258
Negro	3,773	68.4	58.0	86.3	82.6	709
Neshoba						
Total	6,847	31.3	27.4	58.6	57.7	1,810
White	3,366	21.8	22.2	45.7	55.3	2,125
Negro	2,609	62.0	49.1	75.2	71.2	913
Newton						
Total	5,622	30.1	27.7	48.6	53.5	1,868
White	2,287	19.4	22.6	23.9	47.5	2,282
Negro	2,998	60.2	42.9	73.8	74.9	887
Noxubee						
Total	7,894	50.3	39.7	71.2	56.5	1,208
White	732	12.7	12.4	26.9	28.2	2,478
Negro	7,162	76.7	61.4	81.3	75.7	556
Oktibbeha						
Total	8,181	30.5	25.9	65.9	51.9	1,926
White	1,995	15.2	16.5	43.2	37.3	2,536
Negro	6,162	62.0	47.9	79.1	75.7	816

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families Below Poverty Level(1)	Percent of Families With Less Than $3,000 In Income	Percent Below Poverty Level Female Headed Families	Percent Below Poverty Level Population Aged 65 or Over	Per Capita Income(2)
Panola						
Total	11,033	39.6	34.2	64.6	58.4	1,530
White	2,359	18.2	19.0	35.7	41.0	2,404
Negro	8,674	66.1	55.5	78.5	77.7	702
Pearl River						
Total	7,223	25.9	21.7	59.5	55.2	2,016
White	4,860	21.4	19.4	51.9	51.7	2,246
Negro	2,343	50.4	35.3	73.0	72.4	1,004
Perry						
Total	2,898	31.4	25.5	64.2	66.6	1,496
White	1,689	25.4	21.9	55.6	58.7	1,749
Negro	1,209	56.3	41.5	80.8	85.2	792
Pike						
Total	10,178	32.5	25.1	62.0	49.4	1,731
White	2,570	15.9	16.5	33.8	40.4	2,344
Negro	8,148	59.5	40.6	76.9	67.5	936
Pontotoc						
Total	5,214	30.8	31.7	49.0	66.9	1,679
White	3,348	25.8	28.8	42.9	64.8	1,853
Negro	1,866	59.2	49.9	66.7	79.1	893
Prentiss						
Total	4,994	23.8	23.2	54.5	56.9	1,878
White	3,877	21.3	21.7	50.5	55.9	1,990
Negro	1,117	46.1	38.9	72.0	68.2	1,007
Quitman						
Total	8,458	51.8	44.3	80.5	66.3	1,209
White	1,475	21.5	21.2	40.5	40.7	2,165
Negro	6,983	84.0	70.9	96.0	83.7	506
Rankin						
Total	6,617	16.1	13.9	43.0	43.3	1,981
White	2,253	8.2	9.2	26.9	32.4	2,425
Negro	4,316	44.9	33.0	62.3	67.6	856
Scott						
Total	7,303	33.4	27.1	52.2	54.9	1,576
White	3,283	23.8	20.0	30.4	47.2	1,924
Negro	4,020	56.1	44.6	72.3	70.2	871
Sharkey						
Total	4,723	50.9	41.0	81.2	53.0	1,364
White	343	13.4	13.7	20.3	22.2	2,765
Negro	4,380	79.4	64.4	94.7	74.7	604
Simpson						
Total	6,364	30.6	25.4	43.8	56.2	1,664
White	3,089	22.4	19.0	31.7	48.8	2,033
Negro	3,275	52.9	45.3	55.9	74.2	864
Smith						
Total	4,273	31.5	31.4	61.4	52.5	1,758
White	2,471	25.1	27.9	50.0	49.7	2,016
Negro	1,753	58.9	48.0	89.8	69.4	828
Stone						
Total	1,905	24.0	19.9	62.2	56.0	1,894
White	993	17.8	18.3	53.7	49.6	2,122
Negro	912	47.8	27.0	69.5	80.0	1,137
Sunflower						
Total	18,917	50.2	39.4	81.4	62.4	1,351
White	2,060	17.2	16.9	33.9	39.8	2,568
Negro	18,806	75.0	59.4	93.0	78.4	644

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families Below Poverty Level(1)	Percent of Families With Less Than $3,000 In Income	Percent Below Poverty Level Female Headed Families	Percent Below Poverty Level Population Aged 65 or Over	Per Capita Income(2)
Tallahatchie						
Total	10,804	54.3	46.2	79.2	66.8	1,313
White	1,844	24.3	23.5	44.6	47.1	2,458
Negro	8,960	82.4	69.9	92.8	82.7	564
Tate						
Total	6,796	33.9	28.4	61.8	60.3	1,615
White	1,324	14.0	15.0	41.2	44.9	2,422
Negro	5,472	65.1	51.9	76.4	81.8	715
Tippah						
Total	5,080	31.9	28.3	58.2	59.5	1,719
White	3,596	28.2	26.5	52.0	56.6	1,862
Negro	1,484	53.1	40.0	85.9	76.5	994
Tishomingo						
Total	3,313	22.6	25.7	45.3	58.9	1,786
White	2,983	21.3	25.2	38.0	57.8	1,812
Negro	330	51.3	37.8	91.5	78.1	1,246
Tunica						
Total	7,163	59.9	52.2	76.2	69.2	1,124
White	615	20.3	19.8	0.0	35.3	2,637
Negro	6,548	79.0	70.5	82.8	80.5	555
Union						
Total	5,656	26.8	25.4	63.2	55.4	1,963
White	3,647	21.9	22.7	47.0	54.0	2,148
Negro	2,011	56.4	44.4	88.9	65.0	955
Walthall						
Total	4,964	37.2	31.3	62.0	62.0	1,548
White	1,496	22.6	22.0	47.3	56.5	2,094
Negro	3,468	65.4	51.5	74.0	73.4	753
Warren						
Total	10,544	23.0	18.6	65.4	48.2	2,263
White	1,798	7.3	7.1	34.6	30.5	3,038
Negro	8,746	51.1	39.4	77.4	65.1	1,153
Washington						
Total	26,057	35.7	27.1	70.5	59.5	1,866
White	3,647	11.9	10.5	33.0	31.8	3,003
Negro	22,318	60.7	46.1	82.6	77.0	931
Wayne						
Total	6,356	37.9	30.6	69.7	65.6	1,575
White	2,475	24.5	22.8	50.8	60.4	1,970
Negro	3,871	69.7	51.7	83.1	77.4	771
Webster						
Total	3,435	34.1	31.8	63.4	59.5	1,553
White	1,911	25.1	26.3	36.1	55.0	1,805
Negro	1,524	71.5	58.3	94.2	96.1	683
Wilkinson						
Total	5,416	49.6	39.2	63.9	62.7	1,313
White	491	16.2	15.1	21.9	33.0	2,402
Negro	4,907	68.3	54.0	77.2	80.8	793
Winston						
Total	6,614	34.0	28.0	56.9	54.7	1,768
White	1,813	17.5	19.3	41.3	44.4	2,411
Negro	4,636	63.9	45.7	70.5	74.5	824
Yalobusha						
Total	4,869	38.9	33.5	67.5	57.4	1,631
White	1,633	24.8	26.0	42.6	52.4	2,288
Negro	3,236	65.1	50.0	88.7	69.2	662

Table 21.-(continued)

Area and Race	Number of Persons In Families Below Poverty Level	Percent of Families Below Poverty Level(1)	Percent of Families With Less Than $3,000 In Income	Percent Below Poverty Level Female Headed Families	Percent Below Poverty Level Population Aged 65 or Over	Per Capita Income(2)
Yazoo						
Total	12,809	44.9	36.9	74.5	63.5	1,626
White	1,479	13.1	14.8	29.7	37.8	2,714
Negro	11,330	78.2	62.8	87.0	84.4	676

Source: U.S. Bureau of the Census, 1970 Census of Population, Report PC(1)-B1, Table 52; Report PC(1)-C1, Tables 94, 135, and 182; Report PC(1)-D1 Washington, D.C.: USGPO), Tables 250, 259, 308, 314, 315, and 347; Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tabs 8, 75, 83, 84 and 90.

TABLE 22.-DISTRIBUTION OF THE LABOR FORCE BY AGE, UNITED STATES, SOUTH , EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area	Percent of Labor Force in Ages(1) 16-17 Years	18-19 Years	20-21(2) Years	22-24(2) Years	25-34 Years	35-44 Years	45-64 Years	65Years & Over
United States	2.80	4.80	13.40		20.80	20.20	34.00	4.00
South	2.40	4.80	14.30		21.90	20.60	32.00	3.90
E.S.C.(3)	2.20	4.80	13.80		22.00	20.70	32.70	3.90
Mississippi	2.03	4.61	5.51	8.26	21.81	20.48	32.85	4.45
Adams	2.35	3.97	3.25	6.31	21.18	22.92	36.08	3.94
Alcorn	2.30	3.90	4.44	9.32	22.88	19.93	33.26	3.97
Amite	1.92	4.66	3.44	5.92	20.45	20.29	37.58	5.76
Attala	2.19	3.42	4.79	5.38	19.54	19.73	38.87	6.07
Benton	3.61	5.47	3.61	7.50	18.03	20.32	36.48	4.98
Bolivar	2.45	4.79	7.38	8.99	19.23	18.07	32.90	6.18
Calhoun	1.85	3.46	5.37	5.97	21.23	20.96	36.23	4.92
Carroll	1.73	3.67	3.74	7.17	20.38	19.45	37.32	6.54
Chickasaw	1.89	5.49	4.20	9.14	24.92	17.26	33.12	3.97
Choctaw	0.67	4.59	4.96	7.78	21.01	20.08	36.38	4.52
Claiborne	0.80	5.02	4.39	6.39	17.17	18.10	42.02	6.12
Clarke	1.66	3.16	3.18	8.42	22.41	20.13	36.72	4.32
Clay	2.89	5.28	5.18	7.55	21.01	19.07	33.96	5.06
Coahoma	1.52	3.36	3.63	6.79	20.05	19.35	38.23	7.08
Copiah	1.37	5.09	4.08	5.77	21.31	19.85	36.36	6.16
Covington	1.57	3.35	4.31	6.51	24.07	20.65	34.26	5.27
De Soto	1.37	3.76	4.87	8.42	29.61	22.65	26.02	3.31
Forrest	1.94	4.93	8.09	9.24	18.70	20.28	32.48	4.34
Franklin	1.57	4.43	2.66	6.11	23.32	19.87	37.42	4.62
George	2.74	4.82	3.99	6.71	25.92	21.90	30.09	3.82

(1) Each row of percentages adds to 100. Percent distribution of the labor force by age has not been given separately for the sexes or the races. Differences between these groups are slight. White females show the largest variations, having, as a rule, 2 or 3 percent more of their numbers concentrated in each of the 18-19, 20-21, and 20-24 age categories and 2-3 percent less in each of the 25-34, 35-44, and 45-64 age categories.

(2) For U.S., South, and E.S.C., these two age categories are combined.

(3) East South Central.

Table 22.-(continued)

Area	Percent of Labor Force in Ages(1)							
	16-17 Years	18-19 Years	20-21(2) Years	22-24(2) Years	25-34 Years	35-44 Years	45-64 Years	65Year & Over
Greene	0.77	1.46	6.50	9.88	25.30	19.15	33.68	3.27
Grenada	2.98	4.63	4.87	8.47	21.04	19.21	32.98	5.82
Hancock	2.66	4.75	4.07	7.36	21.93	20.58	32.88	5.76
Harrison	2.01	9.16	11.29	11.71	19.90	18.85	23.85	3.23
Hinds	1.93	4.29	5.21	8.33	22.68	22.02	31.74	3.80
Holmes	2.04	4.95	5.79	5.85	16.88	17.98	38.87	7.65
Humphreys	2.39	3.35	4.58	5.72	18.57	20.21	36.54	8.63
Issaquena	4.69	3.93	2.66	9.00	21.29	16.22	36.63	5.58
Itawamba	1.96	5.80	5.74	7.51	21.76	20.84	33.08	3.32
Jackson	2.11	3.56	5.26	10.00	28.16	21.23	27.55	2.12
Jasper	0.79	1.92	6.33	6.06	23.20	21.69	35.39	4.62
Jefferson	0.95	1.99	3.42	8.28	19.84	20.23	40.12	5.16
Jefferson Davis	1.15	3.19	4.58	6.94	20.76	20.40	38.57	4.40
Jones	2.15	4.28	4.14	6.79	20.32	22.26	35.98	4.07
Kemper	2.26	4.25	3.88	5.42	18.35	19.79	37.69	8.37
Lafayette	2.07	5.14	8.31	11.14	20.78	18.73	29.51	4.33
Lamar	2.06	3.24	5.66	7.92	23.59	20.49	33.23	3.82
Lauderdale	1.56	4.21	6.97	9.75	20.89	18.63	33.54	4.46
Lawrence	2.13	2.52	4.71	5.22	20.73	25.35	35.37	3.96
Leake	1.94	4.60	5.51	5.26	21.09	20.81	34.24	6.56
Lee	2.10	3.40	4.43	8.30	23.56	22.05	32.28	3.90
Leflore	1.98	3.19	4.41	8.04	21.25	19.46	35.80	5.88
Lincoln	1.72	4.34	3.89	7.80	19.93	20.89	35.75	5.68
Lowndes	2.19	4.87	6.72	10.92	22.70	19.48	28.75	4.36
Madison	2.03	3.88	5.75	7.84	21.87	22.12	31.99	4.51
Marion	2.52	3.96	3.91	7.42	21.66	21.36	35.66	3.51
Marshall	2.11	5.34	4.86	7.95	22.22	21.85	30.32	5.35
Monroe	1.80	3.87	5.19	7.99	22.58	20.25	34.77	3.55
Montgomery	2.21	3.08	3.32	7.60	21.04	18.47	38.29	6.00
Neshoba	1.73	3.67	4.35	7.70	21.18	21.36	35.59	4.42
Newton	1.48	5.42	5.77	7.03	17.91	21.03	37.23	4.12
Noxubee	4.19	5.54	3.87	7.15	17.98	19.93	34.48	6.85
Oktibbeha	2.20	7.87	11.44	11.45	20.96	18.13	25.17	2.78
Panola	2.03	4.90	4.70	7.51	19.60	20.82	34.56	5.88
Pearl River	2.53	6.08	4.58	7.69	22.88	21.94	31.34	2.97
Perry	1.52	3.57	5.32	8.79	23.15	20.79	34.33	2.53
Pike	1.85	4.80	4.30	6.20	18.36	21.01	38.75	4.73
Pontotoc	2.80	5.34	4.78	6.94	19.01	20.56	35.62	4.94
Prentiss	2.28	4.33	5.26	8.11	23.34	20.78	32.45	3.46
Quitman	2.96	3.70	5.26	8.24	22.31	14.94	35.88	6.72
Rankin	2.32	3.82	4.57	7.61	27.23	23.96	28.07	2.41
Scott	2.42	3.57	5.17	6.96	22.30	22.12	32.90	4.56
Sharkey	3.14	4.04	4.69	6.36	21.99	17.59	36.22	5.96
Simpson	1.74	4.07	4.38	7.86	21.82	19.94	35.76	4.43
Smith	2.35	3.91	4.40	7.42	22.76	19.17	34.60	5.39
Stone	0.73	8.34	4.81	8.27	20.80	20.39	32.29	4.36
Sunflower	2.79	4.76	4.60	7.53	19.51	19.32	35.76	5.74
Tallahatchie	2.32	3.79	4.19	7.60	18.10	18.32	38.90	6.78
Tate	2.49	7.59	5.40	8.39	21.17	18.61	32.62	3.72
Tippah	1.61	3.97	4.24	6.67	22.21	21.28	35.06	4.96
Tishomingo	1.31	3.54	4.86	8.11	26.40	19.51	32.99	3.28
Tunica	1.90	4.09	5.32	7.19	20.40	17.64	36.97	6.49
Union	1.59	4.43	4.62	10.16	22.18	19.65	32.95	4.43
Walthall	1.98	2.03	3.93	8.72	21.81	21.52	35.80	4.22
Warren	2.61	3.24	3.46	7.31	22.14	20.81	35.18	5.25
Washington	2.32	4.13	4.33	7.21	22.69	20.79	33.55	4.98

Table 22.-(continued)

Area	Percent of Labor Force in Ages(1)							
	16-17 Years	18-19 Years	20-21(2) Years	22-24(2) Years	25-34 Years	35-44 Years	45-64 Years	65Years & Over
Wayne	0.96	4.27	4.92	7.86	24.09	20.84	32.97	4.09
Webster	1.83	5.41	4.20	6.48	19.28	20.46	37.85	4.49
Wilkinson	2.55	4.54	5.18	6.41	19.76	17.39	36.65	7.52
Winston	1.63	3.44	4.00	7.06	21.62	22.18	34.81	5.28
Yalobusha	0.77	5.03	4.19	9.24	21.09	17.62	36.68	5.39
Yazoo	1.79	2.84	3.12	6.27	17.78	22.12	40.36	5.72

Source: U.S. Bureau of the Census, 1970 Census of Population, Report PC(1)-C1, Table 78; Report PC(1)-D1, Table 288; Reports PC(1)-C2, PC(1)-C19, PC(1)-C26, and PC(1)-C44 (Washington, D.C.: USGPO), Tables 46. Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tab 55.

TABLE 23.-DISTRIBUTION OF LABOR FORCE BY SEX AND RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area	Total Labor Force		White Labor Force	Negro Labor Force	Area	Total Labor Force		White Labor Force	Negro Labor Force
	Percent Male	Percent White	Percent Male	Percent Male		Percent Male	Percent White	Percent Male	Percent Male
United States	62.80	88.90	63.60	55.60	Leake	63.52	67.47	65.37	59.75
South	62.70	82.70	64.10	55.40	Lee	58.75	82.65	59.99	52.95
E.S.C.(1)	62.80	83.10	64.30	55.50	Leflore	57.89	51.68	61.51	53.93
Mississippi	61.64	70.88	63.76	56.41	Lincoln	62.60	74.69	65.13	55.04
Adams	61.74	60.14	66.21	55.00	Lowndes	59.39	72.63	61.61	53.48
Alcorn	61.09	89.90	61.64	55.84	Madison	61.08	48.06	61.44	60.74
Amite	64.93	57.11	65.18	64.59	Marion	60.95	75.28	61.84	58.08
Attala	61.90	68.21	62.23	61.01	Marshall	64.58	50.09	63.59	65.58
Benton	60.41	67.66	60.72	59.74	Monroe	56.91	75.74	58.50	52.06
Bolivar	57.73	51.69	61.14	54.11	Montgomery	60.92	67.27	61.29	60.35
Calhoun	63.69	78.85	63.72	63.57	Neshoba	60.11	79.50	60.64	57.64
Carroll	64.48	62.58	62.47	67.83	Newton	60.44	75.47	61.67	55.58
Chickasaw	59.61	71.09	59.24	60.65	Noxubee	64.81	46.32	64.89	64.66
Choctaw	61.91	77.29	63.23	57.42	Oktibbeha	62.00	72.43	63.92	56.89
Claiborne	58.58	36.03	62.60	56.32	Panola	60.82	58.97	63.10	57.54
Clarke	60.39	72.86	60.04	61.36	Pearl River	66.77	82.11	69.30	55.04
Clay	59.64	60.28	62.43	55.42	Perry	62.50	78.03	63.69	58.73
Coahoma	59.50	49.19	62.24	56.88	Pike	60.18	64.70	62.09	56.68
Copiah	60.36	57.10	63.20	56.66	Pontotoc	58.83	84.33	59.84	53.39
Covington	62.14	73.10	64.90	54.66	Prentiss	55.91	90.66	56.27	52.36
De Soto	66.56	74.96	67.24	64.71	Quitman	60.38	58.03	62.21	57.78
Forrest	58.34	78.85	60.27	50.73	Rankin	60.39	79.06	62.05	54.06
Franklin	65.09	69.75	66.85	61.01	Scott	62.35	73.70	63.33	59.68
George	70.86	89.95	71.71	63.25	Sharkey	61.14	48.00	63.05	59.38
Greene	65.67	81.66	66.20	63.31	Simpson	61.11	74.37	62.97	55.77
Grenada	57.23	64.85	59.37	53.29	Smith	62.14	81.27	62.99	58.45
Hancock	66.43	85.16	68.57	53.75	Stone	64.73	81.17	66.23	58.81
Harrison	71.21	84.75	73.28	59.29	Sunflower	57.05	51.63	58.17	55.92

(1) East South Central

Table 23.-(continued)

Area	Total Labor Force		White Labor Force	Negro Labor Force	Area	Total Labor Force		White Labor Force	Negro Labor Force
	Percent Male	Percent White	Percent Male	Percent Male		Percent Male	Percent White	Percent Male	Percent Male
Hinds	57.25	68.36	59.77	51.78	Tallahatchie	60.55	56.23	62.06	58.59
Holmes	59.23	47.33	60.53	57.99	Tate	62.91	63.09	64.42	60.33
Humphreys	63.12	48.82	64.72	61.74	Tippah	58.85	86.42	58.57	60.64
Issaquena	71.10	52.22	74.27	67.64	Tishomingo	59.48	95.98	60.00	46.88
Itawamba	59.64	95.00	59.94	54.01	Tunica	60.50	43.36	59.32	61.40
Jackson	68.89	84.68	71.21	56.06	Union	61.87	86.17	62.23	59.98
Jasper	64.24	63.37	65.15	62.66	Walthall	62.13	69.07	62.91	60.67
Jefferson	65.34	35.83	65.30	65.36	Warren	59.85	65.88	63.05	53.63
Jefferson Davis	64.91	58.97	67.72	60.88	Washington	58.97	55.19	62.63	54.30
Jones	63.17	79.91	65.53	53.70	Wayne	64.60	71.30	68.68	54.47
Kemper	67.08	51.92	70.15	64.17	Webster	64.07	81.46	65.12	59.16
Lafayette	58.58	74.96	59.48	55.64	Wilkinson	63.06	40.37	62.29	63.47
Lamar	66.35	89.74	66.99	60.82	Winston	61.71	69.88	63.98	55.52
Lauderdale	61.83	75.62	64.76	52.26	Yalobusha	56.79	66.20	59.53	51.42
Lawrence	63.22	75.82	65.06	57.23	Yazoo	62.98	57.65	65.19	59.97

Source: U. S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tab 55; 1970 Census of Population, U.S. Summary, Report PC(1)-C1, Tables 78, 120, and 132, State Summaries: Alabama, Report PC(1)-C2, Kentucky, Report PC(1)-C19, Mississippi, Report PC(1)-C26, Tennessee, Report PC(1)-C44, (Washington, D.C.: USGPO), Tables 53.

TABLE 24.-LABOR FORCE PARTICIPATION RATES(1) BY AGE AND SEX, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
United States									
Total	58.2	29.5	53.6	64.3	70.6	68.9	72.0	66.6	16.2
Male	76.6	35.7	59.8	73.5	86.0	93.9	94.8	87.2	24.8
Female	41.4	23.0	47.4	56.0	56.1	44.9	50.3	47.8	10.0
South									
Total	57.0	24.4	50.3	64.1	70.9	70.3	72.2	63.5	15.5
Male	74.9	31.8	59.3	75.9	86.8	93.6	93.7	83.5	23.7
Female	40.7	23.0	47.4	56.0	56.1	44.9	50.3	47.8	10.0
E.S.C.(2)									
Total	--	--	--	--	--	--	--	--	--
Male	72.4	26.9	56.5	72.5	85.2	92.9	92.4	81.2	22.8
Female	38.6	12.6	37.6	50.2	52.6	47.1	50.7	43.0	8.9
Mississippi									
Total	53.3	16.6	41.3	57.6	68.1	70.2	71.3	60.6	15.6
Male	69.5	20.0	50.2	69.3	84.3	92.3	91.8	79.1	23.4
Female	38.8	11.0	32.1	46.6	52.5	49.9	53.1	44.2	9.6

(1) Percent of the population that is in the labor force.

(2) East South Central

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
Adams									
Total	53.1	16.4	39.7	46.2	62.0	67.7	70.4	63.8	15.0
Male	72.9	19.4	46.7	72.0	80.6	96.5	95.2	85.6	23.2
Female	37.0	13.3	32.7	32.4	48.8	44.2	50.5	44.0	9.7
Alcorn									
Total	54.3	22.7	47.1	59.7	79.2	72.7	71.9	58.6	13.0
Male	71.0	31.7	56.5	73.1	95.8	92.1	90.7	77.7	20.5
Female	39.7	14.2	38.7	49.1	62.7	54.9	54.4	41.8	7.4
Amite									
Total	48.1	12.4	45.8	48.0	65.0	71.4	72.6	55.4	13.9
Male	64.8	13.9	58.7	63.0	88.3	96.0	92.2	77.2	20.0
Female	32.6	10.9	31.2	34.4	46.8	51.0	52.8	34.3	8.5
Attala									
Total	49.6	15.3	41.1	58.2	66.9	71.9	68.2	59.9	14.6
Male	65.2	21.1	50.6	70.1	93.8	91.2	87.7	79.0	22.7
Female	35.7	9.5	31.9	47.1	41.3	55.0	50.1	43.4	7.7
Benton									
Total	50.3	25.9	56.9	41.6	68.8	60.5	70.8	58.7	14.2
Male	63.0	33.5	62.5	46.2	95.3	84.6	89.3	72.2	20.2
Female	38.5	16.2	50.9	35.9	56.2	37.7	55.2	46.2	8.4
Bolivar									
Total	50.8	15.7	33.9	51.8	63.5	70.1	72.9	61.0	19.0
Male	63.6	21.8	40.4	54.3	74.7	91.7	90.8	78.0	27.9
Female	39.9	9.1	27.5	49.8	52.6	50.5	60.0	47.0	12.0
Calhoun									
Total	51.4	14.0	46.0	73.8	75.1	75.7	73.2	55.5	13.4
Male	68.9	22.2	54.3	86.2	91.9	96.7	91.6	77.6	23.0
Female	35.5	6.3	35.1	63.0	57.5	53.9	58.6	35.3	5.9
Carroll									
Total	49.0	13.4	29.3	48.5	67.6	69.8	72.8	55.8	17.5
Male	65.4	16.1	34.9	59.7	85.6	95.0	94.9	77.5	29.8
Female	33.7	9.9	20.0	42.9	54.8	44.4	55.6	35.7	6.0
Chickasaw									
Total	54.6	16.6	59.8	71.4	79.6	77.1	69.8	60.5	11.9
Male	69.6	33.9	65.9	83.0	93.4	93.2	86.2	76.0	21.1
Female	41.4	1.9	52.0	61.5	67.0	61.5	56.1	46.7	5.2
Choctaw									
Total	46.7	5.2	47.9	46.2	76.4	67.0	67.8	55.3	10.2
Male	61.7	3.4	59.7	41.6	90.8	90.2	93.1	72.7	16.0
Female	33.5	7.3	37.0	49.2	55.4	46.3	45.5	40.0	5.7
Claiborne									
Total	44.5	5.7	21.7	21.0	50.7	67.3	72.1	63.9	16.2
Male	59.3	12.3	31.4	23.9	66.7	90.7	85.4	82.8	21.6
Female	32.8	0.0	16.5	19.2	33.7	50.2	57.7	48.2	12.2
Clarke									
Total	51.2	14.1	32.7	56.6	71.0	75.8	71.0	61.1	11.3
Male	64.9	17.8	34.9	57.3	95.3	92.7	90.8	76.9	18.4
Female	38.7	9.4	30.5	56.1	51.7	59.1	53.1	46.6	5.7
Clay									
Total	54.7	23.4	42.2	54.7	72.3	73.2	73.8	62.9	17.2
Male	71.0	32.4	52.5	68.9	88.8	96.0	94.3	79.8	27.3
Female	40.9	11.3	33.0	43.4	58.7	53.6	56.2	48.4	10.3
Coahoma									
Total	48.5	9.6	26.1	42.9	61.8	66.2	69.6	61.4	18.9
Male	64.3	9.9	29.8	48.4	83.5	90.0	90.4	82.4	30.9
Female	35.7	9.2	22.5	36.9	47.2	48.9	52.7	43.8	10.3

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
Copiah									
Total	48.5	9.6	32.7	49.9	68.9	70.9	71.8	58.7	15.4
Male	63.8	13.0	34.5	61.7	84.0	93.8	90.4	77.6	24.9
Female	35.5	6.7	31.0	37.1	53.2	53.5	53.5	42.7	8.4
Covington									
Total	50.3	10.6	42.7	58.6	62.7	70.6	67.9	57.4	15.3
Male	66.6	15.1	49.3	76.1	78.4	91.9	89.1	77.5	20.2
Female	35.8	5.6	33.3	43.7	49.4	52.7	49.2	38.2	12.0
De Soto									
Total	54.9	10.7	39.3	61.4	67.8	69.1	73.1	57.9	16.2
Male	75.5	18.2	48.4	78.6	94.5	96.6	95.9	80.7	25.9
Female	35.6	2.8	30.1	48.9	48.8	42.5	50.0	36.0	7.5
Forrest									
Total	53.0	19.8	33.0	47.8	62.4	66.3	72.3	64.0	17.2
Male	67.3	24.8	39.6	54.4	69.9	88.8	92.0	81.6	21.5
Female	40.8	15.0	27.1	42.3	54.6	46.3	54.6	49.4	14.3
Franklin									
Total	46.4	9.1	46.9	55.3	66.1	75.8	69.1	52.7	10.4
Male	63.9	13.1	53.9	68.9	86.0	96.6	93.8	78.1	15.8
Female	30.7	4.5	38.9	47.4	45.2	55.6	51.4	28.7	6.2
George									
Total	49.8	20.6	53.5	58.2	50.4	64.6	66.5	52.1	13.9
Male	70.4	28.2	68.9	90.3	84.5	91.9	91.5	70.6	24.2
Female	29.1	10.2	38.0	21.9	22.3	38.6	39.5	33.6	4.3
Greene									
Total	46.4	5.9	16.1	53.5	65.2	66.3	65.9	53.7	9.0
Male	63.1	8.3	26.0	65.5	95.3	91.2	84.6	73.5	10.2
Female	30.8	3.6	8.8	40.4	37.3	42.2	47.8	35.5	8.0
Grenada									
Total	57.4	27.7	54.7	68.8	78.0	73.3	74.3	62.2	19.8
Male	72.7	28.1	51.9	85.5	88.4	94.0	91.1	80.8	31.8
Female	44.8	27.2	56.8	55.0	70.0	55.4	60.1	46.2	11.3
Hancock									
Total	50.9	22.1	45.2	56.5	63.0	68.2	65.3	53.7	19.0
Male	69.1	26.4	53.5	79.2	82.6	95.1	90.1	73.2	24.6
Female	33.4	17.0	34.6	41.6	42.6	40.6	39.6	36.5	14.4
Harrison									
Total	60.3	22.4	70.6	78.5	76.2	65.6	69.9	59.6	19.3
Male	81.0	31.3	86.5	94.8	94.4	95.6	93.2	77.1	26.3
Female	37.0	14.5	38.2	44.5	47.5	37.6	44.8	42.4	13.7
Hinds									
Total	59.4	18.7	39.3	58.1	70.3	74.0	75.5	68.2	19.2
Male	75.1	24.9	45.4	63.8	79.1	94.0	95.8	86.7	28.8
Female	46.5	12.4	34.3	53.8	63.0	57.0	58.2	52.2	12.9
Holmes									
Total	43.7	10.8	31.2	52.0	53.4	61.0	65.8	56.5	16.0
Male	56.9	13.9	37.2	58.9	68.5	83.9	88.6	75.3	22.9
Female	32.7	6.8	25.2	46.3	41.1	42.2	48.8	41.6	10.4
Humphreys									
Total	47.2	13.3	27.1	45.4	54.7	62.0	69.8	56.6	23.0
Male	65.1	18.0	41.4	50.0	76.9	90.4	93.7	79.1	32.5
Female	32.1	8.8	12.8	41.7	35.9	39.5	49.4	38.2	15.0
Issaquena									
Total	46.9	26.1	41.3	35.0	51.5	61.5	62.8	55.3	16.4
Male	68.0	35.5	61.3	37.5	82.7	89.6	85.3	84.6	30.3
Female	26.6	8.2	27.3	30.0	32.6	34.1	43.1	29.0	2.9

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
Itawamba									
Total	56.6	21.4	59.0	80.0	76.4	75.8	76.3	59.9	11.2
Male	70.3	24.9	64.8	84.9	86.6	91.8	91.3	77.6	18.9
Female	43.9	18.1	53.4	74.3	67.3	59.4	62.6	43.7	5.0
Jackson									
Total	58.8	21.0	44.1	64.9	66.8	68.4	69.0	63.2	16.0
Male	82.2	28.5	56.4	83.6	94.8	98.0	96.0	86.5	24.4
Female	36.1	12.7	33.0	50.0	42.4	37.6	42.6	39.6	9.1
Jasper									
Total	45.8	5.0	15.7	59.4	66.7	66.7	68.2	53.8	12.0
Male	62.2	4.9	22.4	84.4	92.6	92.6	88.1	72.6	18.9
Female	31.1	5.2	9.1	34.5	46.7	42.0	52.2	36.7	6.7
Jefferson									
Total	40.0	4.4	12.6	33.8	59.1	61.8	62.9	54.8	10.1
Male	57.6	7.6	12.8	43.8	90.5	93.3	85.9	76.0	18.1
Female	25.4	2.1	12.4	19.0	36.0	38.5	44.8	35.1	4.2
Jefferson Davis									
Total	45.2	6.9	23.5	47.7	52.5	65.4	66.5	54.7	12.6
Male	62.2	7.9	25.3	61.7	70.7	91.1	90.5	74.0	26.1
Female	30.1	5.9	21.1	37.6	35.1	43.8	45.5	36.7	2.3
Jones									
Total	50.3	17.7	38.4	50.1	61.7	64.8	68.6	58.2	13.4
Male	67.6	23.1	49.6	63.2	82.6	88.2	90.1	78.2	19.7
Female	35.0	11.3	26.7	39.9	41.6	43.1	49.3	41.0	8.6
Kemper									
Total	42.8	12.0	26.3	37.9	59.9	69.6	59.7	53.1	17.1
Male	57.7	15.9	33.5	50.0	81.4	88.2	84.2	70.9	29.8
Female	28.0	6.2	16.6	25.7	35.5	49.6	40.2	36.2	5.9
Lafayette									
Total	47.1	19.2	19.8	29.7	51.5	66.1	76.1	66.8	16.8
Male	54.5	19.6	21.8	26.5	48.8	79.0	90.7	86.4	26.6
Female	39.5	18.8	17.3	34.6	54.5	52.2	62.6	49.3	9.9
Lamar									
Total	49.5	14.8	39.1	57.9	61.0	65.1	66.7	56.9	12.1
Male	68.1	16.1	41.5	71.0	90.1	93.9	88.2	77.3	22.5
Female	32.2	13.2	37.0	39.8	36.9	37.0	46.9	38.9	3.5
Lauderdale									
Total	55.5	16.0	49.4	69.4	73.7	69.6	71.8	62.7	15.2
Male	74.3	22.7	62.1	86.9	93.2	93.3	93.8	81.2	22.9
Female	39.4	9.5	36.9	49.6	51.5	47.5	53.5	47.3	10.5
Lawrence									
Total	45.6	12.7	25.2	62.8	56.5	60.2	68.5	53.5	10.3
Male	60.7	16.7	18.0	77.4	81.5	93.3	84.3	69.1	11.6
Female	31.9	9.1	32.0	48.4	32.5	32.8	50.7	39.8	9.4
Leake									
Total	47.8	14.0	42.6	70.8	60.4	69.9	68.0	51.5	16.1
Male	63.3	13.8	52.2	80.7	91.3	87.0	88.9	72.5	25.9
Female	33.5	14.4	30.5	60.0	43.7	54.4	49.6	32.2	7.4
Lee									
Total	61.0	21.7	50.9	67.7	74.4	76.8	77.8	67.4	16.9
Male	76.6	27.2	52.4	76.1	90.8	96.0	95.1	84.8	26.3
Female	47.3	15.7	49.7	61.5	59.4	59.0	61.2	52.1	10.3
Leflore									
Total	54.2	14.1	32.3	52.1	69.2	74.3	74.8	64.5	19.2
Male	70.0	17.2	48.4	65.8	82.5	93.7	92.9	82.2	32.9
Female	41.3	10.8	19.7	43.2	57.1	57.7	60.8	49.8	9.8

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
Lincoln									
Total	52.5	13.7	45.4	56.1	72.5	69.0	69.5	60.4	17.5
Male	70.1	18.8	55.2	67.9	93.3	93.0	92.2	79.8	26.5
Female	36.9	8.3	30.2	47.1	54.6	46.2	49.4	43.7	11.0
Lowndes									
Total	59.8	22.6	39.4	56.4	73.4	73.6	76.5	69.5	21.2
Male	79.2	28.5	57.1	87.9	91.4	96.2	95.4	86.9	30.5
Female	44.1	17.3	30.3	40.4	52.1	52.6	59.0	55.0	15.0
Madison									
Total	50.4	13.5	27.3	56.6	63.9	73.1	71.1	59.8	14.0
Male	66.4	17.4	36.5	74.7	83.1	95.4	90.5	79.3	23.6
Female	36.6	7.9	20.3	41.1	46.0	55.8	53.1	42.8	7.1
Marion									
Total	48.1	15.6	34.7	50.6	64.9	67.7	69.9	54.5	10.5
Male	62.1	15.6	40.1	53.9	78.3	91.0	89.7	70.9	17.2
Female	35.5	15.6	29.5	47.3	53.8	47.0	50.6	40.3	5.6
Marshall									
Total	47.2	12.5	34.6	38.8	60.8	70.3	65.1	54.5	16.1
Male	64.6	16.3	43.6	49.7	82.9	91.6	89.8	75.7	26.1
Female	31.6	8.4	26.3	31.5	39.4	49.1	43.8	35.6	8.1
Monroe									
Total	58.6	17.6	51.6	73.3	79.4	79.3	77.1	66.4	12.4
Male	71.8	21.3	57.9	83.1	91.5	95.4	93.0	81.9	18.2
Female	47.2	14.0	45.8	66.2	66.3	64.1	63.2	53.1	8.1
Montgomery									
Total	52.6	17.8	34.5	59.5	72.8	72.4	70.3	63.8	16.0
Male	67.8	27.0	34.6	74.5	88.8	95.5	95.1	82.3	22.6
Female	38.9	4.0	34.4	50.0	56.1	51.5	51.8	47.4	10.7
Neshoba									
Total	53.0	15.6	39.4	68.6	73.8	76.1	72.4	60.2	12.7
Male	67.6	18.0	48.3	87.7	91.3	93.9	90.1	77.5	20.0
Female	40.1	12.9	30.4	55.3	57.4	58.2	58.0	44.5	6.8
Newton									
Total	50.4	13.2	37.6	53.8	67.8	70.0	72.5	61.8	11.2
Male	64.4	20.2	43.7	60.5	85.3	90.7	95.1	78.6	16.3
Female	37.9	3.4	32.5	45.9	52.1	51.6	53.9	46.4	7.2
Noxubee									
Total	49.6	26.6	43.8	56.9	58.0	66.5	66.7	57.6	18.4
Male	69.0	40.3	66.8	77.9	76.8	85.7	91.2	79.3	30.9
Female	32.7	10.9	23.0	34.3	41.2	50.8	45.8	38.5	8.6
Oktibbeha									
Total	50.9	21.1	35.2	42.5	56.2	68.3	73.8	63.3	13.3
Male	59.1	25.7	36.8	41.0	57.0	81.4	94.4	83.4	20.1
Female	41.6	16.2	32.1	45.4	54.9	54.6	55.3	46.4	7.8
Panola									
Total	52.2	14.0	44.8	59.7	73.2	75.3	73.3	58.9	16.8
Male	67.3	20.2	53.5	73.1	93.1	90.4	95.4	79.4	26.0
Female	38.7	6.8	34.3	49.0	56.6	61.0	56.4	40.9	8.9
Pearl River									
Total	52.2	20.4	47.7	56.0	62.3	65.1	67.1	58.4	12.2
Male	71.9	25.9	57.8	76.6	88.4	93.5	91.8	78.3	19.2
Female	33.7	15.2	36.7	36.3	39.5	36.7	44.3	40.0	5.9
Perry									
Total	50.2	10.2	36.6	65.0	78.9	72.1	65.5	57.8	7.9
Male	65.0	15.0	53.1	92.5	91.6	95.2	86.9	70.2	15.9
Female	36.4	4.8	23.5	43.8	64.1	50.6	47.2	46.0	0.6

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65years and Over
Pike									
Total	50.1	14.0	38.7	58.7	65.0	69.0	69.4	61.0	12.8
Male	65.9	20.7	47.2	59.8	80.8	92.7	88.8	80.0	19.3
Female	36.7	7.5	29.7	57.7	49.5	47.1	53.2	45.3	8.4
Pontotoc									
Total	51.5	24.4	53.2	75.9	72.3	71.6	75.6	55.5	12.8
Male	63.8	26.8	65.1	80.2	84.4	90.3	94.2	67.4	20.2
Female	40.4	21.2	39.8	72.4	65.2	54.3	56.9	44.7	6.9
Prentiss									
Total	57.4	24.8	41.7	72.8	81.5	81.9	80.8	60.2	11.8
Male	68.2	33.7	45.4	75.5	85.9	94.1	93.9	73.9	17.4
Female	47.8	16.5	37.5	70.5	77.4	70.1	69.0	48.4	7.5
Quitman									
Total	46.9	15.8	36.8	56.7	66.5	64.9	60.0	54.9	17.6
Male	59.7	26.6	33.3	71.9	79.9	80.8	79.7	71.8	22.9
Female	35.4	3.6	39.8	45.8	53.7	48.3	45.4	40.3	12.8
Rankin									
Total	52.5	21.9	48.6	60.6	64.0	69.4	69.7	51.5	9.9
Male	65.3	30.2	52.4	70.4	76.7	86.8	84.1	64.7	15.1
Female	40.5	12.8	43.5	54.0	53.8	52.4	54.9	39.2	5.6
Scott									
Total	51.4	16.9	44.1	62.8	70.0	74.1	69.1	55.5	14.0
Male	66.9	22.2	50.5	74.9	95.2	93.2	93.0	71.4	22.2
Female	37.2	10.0	37.2	53.2	45.3	55.4	48.9	40.8	7.5
Sharkey									
Total	52.9	20.1	39.9	60.2	60.9	73.6	71.9	61.8	18.6
Male	69.1	24.8	47.8	74.3	76.5	97.1	93.5	83.8	29.5
Female	38.7	15.1	29.8	46.9	52.9	54.3	54.1	42.6	8.2
Simpson									
Total	50.5	13.2	47.7	61.5	68.0	66.9	67.1	58.9	12.8
Male	64.7	18.2	56.0	67.1	91.5	86.8	84.7	75.1	19.1
Female	37.6	8.2	40.1	56.5	50.1	48.7	51.0	43.6	7.3
Smith									
Total	51.3	18.6	44.3	57.3	69.9	71.7	67.8	55.6	16.4
Male	65.1	23.4	35.9	73.2	86.8	92.6	86.8	71.5	26.1
Female	38.1	12.4	53.5	38.2	56.7	51.5	51.7	40.2	7.8
Stone									
Total	52.0	6.9	45.1	59.2	58.6	67.2	74.2	58.9	15.8
Male	67.6	5.9	47.8	63.1	91.0	96.9	92.1	77.2	19.8
Female	36.6	7.8	41.3	53.2	33.8	36.7	57.8	41.4	12.3
Sunflower									
Total	46.6	15.8	33.8	47.7	53.2	59.9	63.7	57.9	16.6
Male	54.0	19.4	38.2	52.6	50.5	62.9	72.6	70.4	23.9
Female	39.4	12.2	29.0	42.0	56.3	56.4	55.3	46.5	10.9
Tallahatchie									
Total	44.7	12.3	30.2	47.1	67.2	61.9	61.8	55.9	1.55
Male	57.5	15.1	33.9	63.2	87.8	85.5	78.9	70.8	24.8
Female	33.3	9.0	26.9	31.8	49.1	41.5	49.2	43.0	6.9
Tate									
Total	51.6	18.3	41.7	51.4	73.9	67.8	75.0	60.3	12.5
Male	69.1	28.0	45.4	63.3	96.9	93.5	95.8	83.4	21.7
Female	36.1	6.3	38.1	42.3	53.2	47.4	54.3	40.1	5.1
Tippah									
Total	54.0	14.8	39.8	60.7	78.8	75.0	77.4	61.1	14.4
Male	67.5	25.1	39.0	73.1	87.9	93.5	92.1	78.0	20.1
Female	42.0	4.3	40.3	52.9	70.6	60.3	61.3	45.0	9.6

Table 24.-(continued)

Area and Sex	Percent of Persons of Stated Ages Who Are in The Labor Force								
	16 years and Over	age 16-17 years	age 18-19 years	age 20-21 years	age 22-24 years	age 25-34 years	age 35-44 years	age 45-64 years	65ye and Ove
Tishomingo									
Total	51.4	12.6	41.2	75.5	73.5	76.5	73.6	53.9	9
Male	63.9	21.3	39.5	78.0	85.7	92.8	90.3	71.5	12
Female	40.0	4.4	43.1	73.3	61.4	60.5	59.6	38.1	6
Tunica									
Total	43.8	9.9	31.6	49.5	62.1	62.9	63.0	54.4	14
Male	56.4	12.4	44.8	67.7	55.5	80.0	88.8	75.1	18
Female	32.7	7.1	15.8	36.8	70.1	47.4	46.3	36.8	10
Union									
Total	53.4	17.1	53.3	58.7	78.1	74.0	73.4	56.9	13
Male	70.2	31.3	65.5	75.3	92.7	93.4	90.0	76.2	19
Female	38.5	3.2	40.7	50.7	60.1	55.2	58.5	39.3	7
Walthall									
Total	48.8	14.8	27.9	47.0	69.0	71.7	67.9	53.9	12
Male	65.3	22.1	41.8	55.0	86.9	92.3	86.7	74.2	21
Female	34.4	7.9	14.2	42.1	57.1	53.2	51.1	35.9	3
Warren									
Total	56.2	24.3	41.0	53.0	67.3	71.9	74.3	64.9	18
Male	73.3	31.3	47.5	67.1	85.1	96.6	95.9	82.0	25
Female	41.7	16.5	33.7	43.4	53.5	50.7	54.4	49.9	13
Washington									
Total	54.9	16.2	42.0	56.1	66.8	73.1	73.3	63.1	18
Male	71.2	21.8	47.9	67.5	86.5	94.4	94.0	82.5	26
Female	41.3	11.0	35.6	45.5	52.1	54.9	56.0	46.9	13
Wayne									
Total	48.9	7.0	35.7	57.9	65.9	66.4	66.2	56.5	12
Male	67.3	8.9	47.8	77.3	90.8	88.7	94.0	75.6	16
Female	32.7	5.5	23.3	45.6	40.7	46.0	41.7	38.0	10
Webster									
Total	48.3	14.2	46.5	70.0	67.4	69.4	65.0	57.3	10
Male	64.9	21.0	49.3	83.2	86.5	92.4	87.5	76.9	18
Female	33.2	9.1	42.6	55.2	54.2	48.8	43.5	39.1	4
Wilkinson									
Total	48.2	13.1	37.9	72.8	69.5	73.1	57.8	56.6	20
Male	64.3	11.5	43.4	88.0	89.8	93.8	85.6	77.3	29
Female	33.8	14.7	31.4	51.5	53.9	55.7	37.1	37.4	11
Winston									
Total	47.7	11.9	36.6	54.1	66.9	68.6	68.8	52.6	13
Male	61.8	15.4	39.2	67.7	82.0	89.6	86.0	72.6	19
Female	34.9	7.0	34.4	47.8	52.5	48.4	54.8	34.7	8
Yalobusha									
Total	51.4	6.3	45.6	61.4	86.2	78.3	76.1	59.4	12
Male	63.7	10.2	60.4	71.4	91.7	94.1	89.4	77.2	16
Female	40.9	2.9	32.9	52.6	81.0	63.8	65.2	44.6	10
Yazoo									
Total	49.9	11.0	34.8	44.6	63.4	65.6	70.1	63.2	15
Male	67.6	16.2	42.7	59.8	89.7	90.6	91.9	85.1	25
Female	34.5	4.0	25.8	34.4	39.3	46.6	51.0	43.5	8

Source: U. S. Bureau of the Census, Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tabs 17 and 55; 1970 Census of Population, U. S. Summary, Report Pc(1)-C1 Tables 161,78, and 164, Report PC(1)-D1 (Washington, D. C.: USGPO), Table 288.

TABLE 25.-OCCUPATIONAL DISTRIBUTION OF EMPLOYED PERSONS 14 YEARS OLD AND OLDER, BY RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Service Jobs
United States							
Total	45.6	22.0	33.4	12.9	12.6	2.9	11.8
White	48.0	23.2	33.0	7.7	12.4	3.0	10.4
Nonwhite	26.0	11.2	35.9	8.0	15.4	2.6	23.8
South							
Total	45.4	22.0	37.7	14.2	14.2	3.7	13.1
White	50.4	24.5	36.6z	15.4	13.6	3.4	9.4
Nonwhite	20.8	10.0	42.9	8.8	16.6	5.2	31.1
E.S.C.(2)							
Total	40.9	20.0	41.6	14.4	17.2	4.6	12.7
White	45.4	22.0	41.2	15.6	17.0	4.4	9.0
Nonwhite	17.4	9.8	44.4	8.1	18.8	5.9	32.2
Mississippi							
Total	36.7	19.3	38.5	12.8	15.9	6.0	12.9
White	45.5	23.1	37.4	14.9	15.5	4.3	7.2
Nonwhite	14.8	10.0	41.1	7.7	16.7	10.1	27.1
Adams							
Total	40.5	22.1	36.1	12.8	11.9	1.6	15.9
White	54.2	27.4	33.9	15.0	12.8	0.6	5.6
Nonwhite	18.3	13.5	39.6	9.1	10.6	3.2	32.5
Alcorn							
Total	30.9	16.5	50.0	14.5	26.0	3.7	10.6
White	33.3	17.9	50.8	15.5	26.5	3.9	7.5
Nonwhite	10.4	8.8	43.0	5.7	22.2	2.0	38.2
Amite							
Total	23.8	14.5	48.3	13.9	18.5	10.6	11.3
White	34.3	18.9	44.4	17.7	18.4	10.4	5.8
Nonwhite	9.0	8.2	53.7	8.7	18.6	10.8	19.1
Attala							
Total	33.3	17.6	44.2	13.8	17.9	6.7	12.6
White	43.8	21.9	42.4	16.0	18.2	4.3	6.9
Nonwhite	10.1	8.2	48.0	8.8	17.4	11.9	25.4
Benton							
Total	24.3	12.6	47.6	12.5	22.5	13.6	12.2
White	29.4	15.0	50.1	15.5	25.3	10.8	7.7
Nonwhite	13.1	7.6	42.1	5.9	16.2	19.6	21.8
Bolivar							
Total	36.6	20.6	27.8	9.1	12.0	14.0	17.2
White	50.3	26.1	27.7	11.6	12.5	11.3	7.2
Nonwhite	20.1	13.8	27.8	6.1	11.5	17.2	29.3
Calhoun							
Total	22.9	12.6	50.3	13.3	28.0	12.2	8.9
White	27.0	14.1	50.4	14.6	28.9	11.8	5.9
Nonwhite	7.0	6.5	50.2	8.6	24.6	13.8	20.4
Carroll							
Total	26.9	13.9	39.9	13.1	17.1	16.9	10.9
White	38.1	18.6	37.4	15.4	16.6	10.5	8.9
Nonwhite	7.6	5.9	44.4	9.8	18.2	27.8	14.3

(1) Does not include Transport Equipment Operatives
(2) East South Central

Table 25.-(continued)

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Servic Jobs
Chickasaw							
Total	28.0	14.6	51.2	13.7	29.0	7.2	10.7
White	34.6	17.7	51.4	14.8	29.4	4.6	6.3
Nonwhite	11.1	6.4	50.8	10.9	27.8	13.7	22.0
Choctaw							
Total	25.4	15.7	57.2	16.2	31.3	3.3	9.4
White	29.0	16.7	59.5	18.9	34.0	4.0	4.4
Nonwhite	13.2	12.3	49.2	7.3	22.2	0.7	26.0
Claiborne							
Total	37.0	21.1	39.1	11.5	14.1	6.7	13.2
White	51.6	28.0	38.0	18.1	12.6	5.5	2.8
Nonwhite	28.1	16.9	39.7	7.5	15.1	7.5	19.5
Clarke							
Total	30.0	16.6	54.1	12.5	25.8	3.0	10.1
White	36.9	19.2	52.6	14.6	27.1	2.8	5.8
Nonwhite	11.4	9.6	57.9	6.7	22.1	3.6	21.6
Clay							
Total	33.0	17.6	45.2	13.2	22.0	5.3	13.6
White	43.3	22.7	43.6	16.4	19.9	4.7	6.3
Nonwhite	16.3	9.5	48.0	8.0	25.3	6.2	25.5
Coahoma							
Total	39.9	22.9	25.0	8.5	8.7	13.9	16.8
White	59.1	31.4	23.0	11.0	7.7	6.6	8.1
Nonwhite	19.7	13.9	27.2	5.9	9.8	21.5	25.9
Copiah							
Total	30.4	16.6	46.3	10.7	21.2	7.1	11.5
White	44.5	23.1	40.2	12.9	17.8	4.9	7.4
Nonwhite	10.0	7.3	55.1	7.7	26.0	10.1	17.4
Covington							
Total	27.6	15.2	49.9	13.7	22.4	8.4	10.4
White	33.1	17.1	47.4	15.9	20.0	9.8	6.4
Nonwhite	11.9	9.8	57.1	7.6	29.2	4.3	21.6
De Soto							
Total	34.6	15.3	45.0	16.9	16.4	6.9	8.5
White	43.4	18.7	43.4	19.6	13.9	3.6	5.4
Nonwhite	7.0	4.6	50.1	8.2	24.2	17.2	18.1
Forrest							
Total	47.6	24.3	31.8	12.1	10.3	0.7	13.6
White	56.0	28.0	29.0	13.8	8.6	0.7	8.2
Nonwhite	16.4	10.5	41.9	5.8	16.8	0.8	33.9
Franklin							
Total	27.8	16.1	50.5	16.0	17.4	3.8	13.5
White	34.1	19.3	49.4	18.8	21.8	3.9	8.7
Nonwhite	12.2	8.1	53.1	9.1	6.5	3.3	25.4
George							
Total	28.1	16.8	51.2	25.2	17.2	3.3	9.4
White	29.7	17.4	51.7	26.9	17.3	3.7	6.4
Nonwhite	12.6	10.2	46.7	9.3	16.2	0.0	29.4
Greene							
Total	26.3	16.9	54.2	19.8	20.3	3.9	8.7
White	28.8	18.2	53.0	21.7	18.7	4.4	6.
Nonwhite	13.9	11.0	60.1	10.6	27.9	1.6	18.
Grenada							
Total	34.4	17.0	43.3	12.0	21.5	4.3	12.
White	45.6	21.9	39.2	14.0	18.4	2.1	7.
Nonwhite	11.9	7.1	51.6	8.1	27.7	8.5	22.

Table 25.-(continued)

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Service Jobs
Hancock							
Total	38.5	23.1	40.7	18.7	8.9	1.6	13.6
White	42.4	25.9	40.7	20.1	9.2	1.8	8.9
Nonwhite	15.6	7.2	40.2	10.2	7.1	0.0	41.1
Harrison							
Total	44.3	23.2	32.2	15.2	7.3	0.2	13.9
White	50.9	26.5	31.2	16.7	7.1	0.3	9.5
Nonwhite	13.3	8.0	36.9	8.0	8.2	0.0	34.6
Hinds							
Total	52.7	26.0	25.1	9.9	8.0	1.2	14.5
White	67.5	32.6	19.5	10.4	5.3	0.7	6.7
Nonwhite	19.2	11.0	37.7	8.7	14.0	2.4	32.2
Holmes							
Total	30.8	17.8	30.8	9.6	11.8	18.1	11.8
White	44.8	23.4	30.7	11.7	12.6	11.1	6.4
Nonwhite	17.4	12.4	30.8	7.6	11.0	24.9	17.0
Humphreys							
Total	25.7	15.4	23.1	8.3	8.8	29.0	13.4
White	37.3	19.2	29.7	13.2	12.4	20.7	5.1
Nonwhite	14.1	11.6	16.6	3.5	5.1	37.2	21.6
Issaquena							
Total	22.9	14.1	21.5	6.9	9.0	49.6	6.0
White	28.4	17.0	19.4	8.3	7.8	49.3	2.9
Nonwhite	16.4	10.5	24.0	5.3	10.5	50.0	9.6
Itawamba							
Total	24.0	12.5	62.3	16.1	36.4	4.7	7.0
White	24.3	12.4	62.6	16.7	36.4	4.8	6.1
Nonwhite	17.4	14.6	55.8	6.1	35.4	3.1	22.9
Jackson							
Total	39.6	22.7	42.2	20.4	13.8	0.3	10.3
White	43.4	24.7	41.1	22.3	12.9	0.3	7.4
Nonwhite	19.2	11.7	48.3	9.9	18.8	0.4	26.5
Jasper							
Total	26.9	16.4	51.9	14.4	19.9	3.8	9.1
White	34.8	19.2	48.7	18.1	21.5	3.3	5.0
Nonwhite	13.2	11.4	57.3	7.9	17.1	4.5	16.2
Jefferson							
Total	22.8	11.9	48.6	14.3	16.4	6.1	13.8
White	35.4	16.5	44.9	16.9	20.3	6.7	6.3
Nonwhite	14.8	9.0	50.9	12.7	14.0	5.8	18.6
Jefferson Davis							
Total	33.0	20.1	42.7	10.7	19.0	11.9	9.1
White	42.0	23.2	39.0	13.8	17.9	11.2	4.6
Nonwhite	19.3	15.4	48.4	6.1	20.7	13.0	15.9
Jones							
Total	34.5	18.1	41.7	13.9	16.4	3.6	12.6
White	39.7	20.1	41.6	15.9	16.0	3.5	8.4
Nonwhite	13.3	9.6	42.2	5.8	18.2	4.2	29.8
Kemper							
Total	24.4	16.8	43.3	14.6	14.5	14.9	10.0
White	33.7	20.6	38.3	18.2	15.4	14.9	6.4
Nonwhite	13.4	12.4	49.2	10.4	13.4	15.0	14.4
Lafayette							
Total	48.3	28.1	24.7	10.1	7.8	4.4	17.4
White	58.5	33.6	23.1	10.8	7.5	3.3	9.6
Nonwhite	17.1	11.1	29.5	8.2	8.8	7.6	41.4

Table 25.-(continued)

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Servi Jobs
Lamar							
Total	31.6	16.8	52.5	19.5	19.2	3.9	8.9
White	34.4	18.0	52.8	21.1	18.8	3.4	6.5
Nonwhite	6.9	6.9	50.5	5.5	23.1	8.7	29.6
Lauderdale							
Total	42.7	21.6	32.2	11.7	10.6	1.0	15.5
White	51.7	25.1	30.2	13.1	9.9	0.4	9.5
Nonwhite	16.5	11.6	37.9	7.5	12.8	2.6	32.8
Lawrence							
Total	28.1	17.6	50.6	15.5	23.8	3.7	12.4
White	32.8	19.3	52.2	18.3	26.8	3.4	6.9
Nonwhite	13.1	12.0	45.5	6.9	14.4	4.8	29.8
Leake							
Total	23.8	12.7	49.3	14.6	22.9	10.9	8.1
White	30.5	14.5	47.8	15.9	22.7	10.8	4.5
Nonwhite	8.9	8.6	52.6	11.6	23.2	11.1	16.2
Lee							
Total	40.2	17.4	41.1	12.6	20.6	3.8	10.7
White	45.8	19.2	39.8	13.8	19.7	3.2	7.0
Nonwhite	12.9	8.6	47.7	6.8	24.9	6.5	28.9
Leflore							
Total	38.4	19.8	30.1	10.7	11.5	10.4	17.2
White	57.1	27.4	25.9	14.2	7.4	5.8	7.5
Nonwhite	17.1	11.2	34.9	6.6	16.3	15.5	28.2
Lincoln							
Total	32.6	17.0	44.1	12.9	20.3	4.9	11.2
White	37.7	18.9	44.1	14.2	21.8	5.8	5.6
Nonwhite	16.8	11.3	44.2	8.9	15.8	2.2	28.4
Lowndes							
Total	40.9	20.5	34.1	10.1	16.3	3.2	14.6
White	52.2	25.1	31.7	11.9	15.1	2.2	7.3
Nonwhite	13.4	9.1	40.0	5.8	19.1	5.6	32.4
Madison							
Total	31.7	15.4	39.7	13.1	17.5	8.5	14.6
White	49.9	22.5	33.1	14.5	13.5	5.2	6.8
Nonwhite	13.9	8.3	46.3	11.7	21.5	11.8	22.3
Marion							
Total	30.7	15.9	46.7	14.1	19.4	3.7	9.4
White	37.4	18.8	44.9	15.1	20.7	3.5	6.5
Nonwhite	8.6	6.2	52.4	11.0	15.1	4.2	18.9
Marshall							
Total	28.3	16.4	43.7	12.6	18.0	11.0	11.6
White	39.1	20.9	46.5	18.2	20.2	5.4	5.3
Nonwhite	17.0	11.7	40.7	6.8	15.8	16.9	18.3
Monroe							
Total	24.8	12.4	55.4	14.5	32.2	5.2	11.8
White	30.7	15.0	56.0	16.5	32.6	4.0	6.7
Nonwhite	5.7	4.2	53.6	8.0	30.7	8.8	28.5
Montgomery							
Total	31.6	16.2	42.1	10.3	19.9	9.3	12.8
White	40.2	19.0	40.5	11.5	22.2	7.3	7.9
Nonwhite	12.0	10.0	45.8	7.6	14.7	14.0	24.3
Neshoba							
Total	27.1	14.6	50.2	15.3	23.6	7.2	10.8
White	30.6	15.8	51.4	17.1	24.5	5.9	7.5
Nonwhite	13.3	9.9	45.7	8.0	20.1	12.6	24.3

Table 25.-(continued)

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Service Jobs
Newton							
Total	29.2	15.7	43.4	11.9	21.7	7.5	11.8
White	35.2	18.3	43.7	14.8	21.3	6.1	7.5
Nonwhite	10.4	7.5	42.6	2.7	22.7	11.7	25.2
Noxubee							
Total	22.6	11.1	36.2	9.0	13.8	19.8	16.4
White	39.9	18.5	33.0	12.1	12.3	16.4	5.9
Nonwhite	5.7	3.8	39.3	6.1	15.3	23.1	26.6
Oktibbeha							
Total	47.5	29.0	25.9	9.3	9.9	4.7	16.1
White	60.4	36.5	22.9	10.3	8.4	2.9	7.4
Nonwhite	12.8	8.8	34.0	6.8	13.9	9.3	39.6
Panola							
Total	26.6	13.5	43.0	11.8	20.9	12.6	12.8
White	37.0	17.7	43.1	13.5	20.2	9.2	6.0
Nonwhite	10.1	7.0	42.9	8.9	22.1	17.9	23.5
Pearl River							
Total	36.8	21.7	43.9	16.4	15.5	2.9	11.2
White	41.7	24.3	43.6	18.5	15.9	2.9	6.8
Nonwhite	13.2	8.8	45.1	6.0	13.4	3.1	32.4
Perry							
Total	29.1	15.5	50.8	15.9	22.2	5.7	9.5
White	33.4	16.7	49.6	18.5	21.2	4.9	8.4
Nonwhite	13.5	11.1	55.3	6.3	26.1	8.5	13.7
Pike							
Total	37.8	17.9	39.9	12.6	15.2	2.8	13.5
White	49.4	20.9	35.2	15.3	12.7	3.1	6.6
Nonwhite	16.1	12.4	48.6	7.5	20.0	2.2	26.3
Pontotoc							
Total	28.3	14.8	48.6	13.1	27.3	9.2	11.3
White	31.5	15.9	49.5	14.3	27.9	9.0	7.7
Nonwhite	11.2	8.8	44.1	6.7	24.0	10.6	30.8
Prentiss							
Total	26.0	12.9	55.2	13.3	34.3	6.1	9.1
White	27.5	13.5	55.8	13.8	34.3	6.3	6.9
Nonwhite	12.0	7.3	49.4	8.0	33.8	3.9	30.7
Quitman							
Total	29.6	17.5	35.1	10.1	16.9	21.2	11.4
White	37.7	19.8	40.1	11.9	21.1	15.4	4.8
Nonwhite	16.9	13.8	27.1	7.2	10.3	30.4	21.8
Rankin							
Total	36.8	15.8	39.1	15.1	13.2	4.0	13.2
White	43.9	18.3	38.1	17.1	11.7	3.0	7.6
Nonwhite	9.8	6.0	43.0	7.5	18.6	7.6	34.4
Scott							
Total	25.2	13.8	50.4	13.0	24.7	10.5	8.6
White	30.4	16.1	46.8	15.0	22.2	11.3	6.2
Nonwhite	10.3	7.1	60.7	7.6	31.8	8.3	15.3
Sharkey							
Total	33.8	20.2	24.1	7.9	9.2	27.7	13.2
White	51.3	26.3	26.2	11.4	10.3	17.8	4.7
Nonwhite	14.9	13.6	21.9	4.1	8.0	38.3	22.4
Simpson							
Total	24.6	14.8	47.6	13.1	23.8	10.0	11.5
White	31.8	19.0	45.0	16.0	20.7	9.5	7.5
Nonwhite	3.7	2.6	55.2	4.9	32.8	11.4	23.4

Table 25.-(continued)

Area and Race	Percent of Workers Employed In						
	White Collar Jobs		Blue Collar Jobs				
	Total	Professional Managerial &Technical	Total	Craftsmen &Foremen	Operatives(1)	Farm Jobs	Servi Jobs
Smith							
Total	20.4	11.2	44.1	13.3	19.3	16.0	7.5
White	24.1	13.0	43.8	14.6	20.0	14.7	5.5
Nonwhite	3.6	3.0	45.9	7.7	16.1	22.2	16.7
Stone							
Total	33.8	20.9	46.5	15.2	15.4	4.0	11.9
White	38.0	22.6	43.9	17.2	15.2	4.2	9.6
Nonwhite	15.1	13.5	58.3	5.8	16.4	3.3	21.8
Sunflower							
Total	33.7	18.5	27.4	9.0	11.3	17.9	16.6
White	47.5	23.0	26.9	11.1	12.2	12.6	9.5
Nonwhite	17.5	13.3	28.0	6.6	10.3	24.2	24.8
Tallahatchie							
Total	27.6	16.5	30.6	9.4	15.0	24.0	13.2
White	38.9	21.5	36.5	11.9	19.6	16.8	4.7
Nonwhite	12.1	9.6	22.5	5.9	8.8	33.9	24.8
Tate							
Total	30.4	15.4	41.2	11.9	19.9	14.1	11.3
White	40.7	19.9	41.5	14.6	20.3	10.2	5.5
Nonwhite	11.8	7.3	40.6	7.1	19.3	21.0	21.8
Tippah							
Total	26.9	13.5	47.5	11.6	27.9	10.8	10.3
White	29.3	14.1	48.0	12.5	28.3	10.5	7.9
Nonwhite	11.0	9.5	44.3	5.8	24.8	13.1	26.3
Tishomingo							
Total	24.8	13.4	59.0	15.7	32.6	4.1	9.5
White	25.3	13.6	59.3	16.1	32.8	4.2	8.5
Nonwhite	13.2	8.4	51.6	5.8	25.3	0.0	35.3
Tunica							
Total	24.7	12.3	28.6	9.1	10.2	24.7	17.7
White	40.2	19.3	35.0	13.3	15.4	16.5	5.7
Nonwhite	11.2	6.1	23.1	5.4	5.7	31.9	28.2
Union							
Total	31.5	17.3	47.8	13.9	24.7	7.1	9.2
White	35.3	19.2	46.6	15.0	23.9	6.9	6.6
Nonwhite	6.4	5.3	55.8	7.1	30.1	7.8	26.2
Walthall							
Total	27.6	15.9	46.0	11.1	20.0	11.7	9.5
White	34.6	18.5	44.9	12.5	22.8	10.1	6.5
Nonwhite	11.1	9.8	48.6	7.6	13.4	15.5	16.5
Warren							
Total	44.2	24.6	33.4	13.5	10.0	1.5	16.9
White	57.5	31.9	30.2	15.9	8.8	0.6	7.2
Nonwhite	17.4	9.9	40.0	8.8	12.4	3.5	34.9
Washington							
Total	40.3	21.5	31.5	11.8	12.1	7.2	15.2
White	56.1	28.4	27.5	13.3	9.1	4.8	6.0
Nonwhite	18.7	12.0	37.0	9.7	16.0	10.4	27.8
Wayne							
Total	27.5	14.3	48.3	11.8	20.4	4.1	8.5
White	32.4	15.4	46.6	13.6	20.9	4.9	4.4
Nonwhite	15.0	11.6	52.5	7.2	19.1	1.9	19.4
Webster							
Total	27.0	13.8	50.6	13.5	28.3	8.8	10.7
White	30.9	15.0	52.6	15.8	30.5	7.3	7.0
Nonwhite	9.3	8.2	41.3	3.4	18.2	15.6	27.8

Table 25.-(continued)

Area and Race	Percent of Workers Employed In: White Collar Jobs: Total	White Collar Jobs: Professional Managerial &Technical	Blue Collar Jobs: Total	Blue Collar Jobs: Craftsmen &Foremen	Blue Collar Jobs: Operatives(1)	Farm Jobs	Service Jobs
Wilkinson							
Total	22.7	14.0	46.1	10.2	18.2	10.2	14.2
White	40.0	23.5	42.5	15.6	20.8	6.1	8.8
Nonwhite	9.1	6.5	48.9	6.0	16.2	13.4	18.4
Winston							
Total	30.2	15.8	47.0	12.9	19.7	5.7	11.7
White	39.3	19.7	43.9	15.6	19.6	5.5	6.5
Nonwhite	8.5	6.6	54.4	6.5	20.1	6.1	24.4
Yalobusha							
Total	27.5	15.3	48.0	11.7	25.0	8.2	11.9
White	36.5	19.4	47.1	14.6	22.0	6.0	6.5
Nonwhite	9.2	6.3	49.9	5.7	31.1	12.5	23.1
Yazoo							
Total	32.4	18.0	30.9	10.9	10.7	15.2	16.3
White	45.9	24.0	31.6	13.8	11.7	9.2	7.5
Nonwhite	12.9	9.2	30.0	6.6	9.3	24.0	29.1

Source: U.S. Bureau of the Census, Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Fourth Count, Tab 68 1970 Census of population, U.S. Summary, Report PC(1)-C1, Tables 81 and 133, State Summaries: Alabama, Report PC(1)-C2, Kentucky, Report PC(1)-C19, Mississippi, Report PC(1)-C26, Tennessee, Report PC(1)-C44 (Washington, D.C.: USGPO), Tables 46.

TABLE 26.-NUMBER UNEMPLOYED AND RATES OF UNEMPLOYMENT OF EXPERIENCED WORKERS, 16 YEARS OLD AND OLDER, BY RACE, SEX, AND OCCUPATIONAL CATEGORY, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Occupation Category	Unemployed: Total(1)	White: Male	White: Female	Negro: Male	Negro: Female
	Number Unemployed				
United States					
White Collar(2)	941,104	331,007	510,152	28,493	59,272
Blue Collar(3)	1,670,749	1,024,761	371,959	172,216	78,436
Service	477,994	134,021	211,867	36,504	86,970
Farm	83,248	48,724	12,284	11,478	7,932
Mississippi					
White Collar	6,175	1,804	2,980	331	1,051
Blue Collar	17,593	6,514	3,225	5,296	2,521
Service	6,015	416	975	532	4,092
Farm	3,443	520	75	1,885	957

(1) Total may equal more than the sum of White and Negro Unemployment since there are unemployed workers of other races in some counties.

(2) White Collar includes (1) professional, technical, and managerial workers, (2) sales workers, and (3) clerical and kindred workers.

(3) Blue collar includes (1) craftsmen, foremen, and kindred workers, (2) operatives including transport, and (3) laborers, except farm.

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Adams					
White Collar	135	33	48	4	50
Blue Collar	269	99	17	121	32
Service	184	4	25	11	144
Farm	20	0	0	7	13
Alcorn					
White Collar	134	73	61	0	0
Blue Collar	454	223	208	19	4
Service	85	21	30	19	15
Farm	22	15	0	7	0
Amite					
White Collar	39	20	7	0	12
Blue Collar	153	55	6	53	39
Service	35	6	0	0	29
Farm	17	0	0	0	17
Attala					
White Collar	69	7	38	0	24
Blue Collar	192	90	38	56	8
Service	48	0	9	16	23
Farm	17	13	0	0	4
Benton					
White Collar	16	16	0	0	0
Blue Collar	107	52	15	37	13
Service	15	0	0	3	12
Farm	10	0	0	0	10
Bolivar					
White Collar	134	39	34	8	53
Blue Collar	454	87	46	247	74
Service	277	5	0	25	247
Farm	438	70	3	251	114
Calhoun					
White Collar	29	21	8	0	0
Blue Collar	174	104	39	20	11
Service	28	0	9	0	19
Farm	23	0	0	17	6
Carroll					
White Collar	11	0	7	0	4
Blue Collar	75	32	23	11	9
Service	32	5	4	0	23
Farm	25	5	6	8	6
Chickasaw					
White Collar	38	29	0	5	4
Blue Collar	224	49	97	47	31
Service	43	5	0	0	38
Farm	13	10	0	3	0
Choctaw					
White Collar	48	16	26	6	0
Blue Collar	111	66	29	4	12
Service	5	0	0	0	5
Farm	6	6	0	0	0
Claiborne					
White Collar	26	0	13	8	5
Blue Collar	117	9	8	62	38
Service	51	0	0	3	48
Farm	23	7	0	7	9

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Clarke					
White Collar	23	9	14	0	0
Blue Collar	224	66	86	45	27
Service	22	0	6	0	16
Farm	0	0	0	0	0
Clay					
White Collar	37	0	12	4	21
Blue Collar	165	58	27	63	17
Service	66	0	13	7	46
Farm	35	12	0	18	5
Coahoma					
White Collar	151	18	85	14	34
Blue Collar	234	37	20	133	44
Service	180	0	32	34	114
Farm	287	24	0	138	125
Copiah					
White Collar	52	10	25	5	12
Blue Collar	297	33	22	105	137
Service	55	6	4	6	39
Farm	36	0	0	14	22
Covington					
White Collar	20	15	5	0	0
Blue Collar	104	33	13	40	18
Service	13	6	0	0	7
Farm	27	0	0	0	27
De Soto					
White Collar	44	22	22	0	0
Blue Collar	329	107	110	55	57
Service	20	0	4	4	12
Farm	59	0	0	59	0
Forrest					
White Collar	264	122	130	12	0
Blue Collar	266	127	42	64	33
Service	90	10	28	4	48
Farm	16	5	0	6	5
Franklin					
White Collar	15	9	6	0	0
Blue Collar	104	47	10	34	13
Service	32	0	4	8	20
Farm	5	0	0	5	0
George					
White Collar	11	11	0	0	0
Blue Collar	101	70	6	9	16
Service	14	0	0	9	5
Farm	4	0	0	4	0
Greene					
White Collar	26	5	3	0	18
Blue Collar	118	47	40	16	15
Service	11	0	0	0	11
Farm	0	0	0	0	0
Grenada					
White Collar	63	19	15	10	19
Blue Collar	216	56	29	77	54
Service	59	5	0	0	54
Farm	26	4	0	14	8

Table 26.-(continued)

Area and Occupation Category	Unemployed				
		White		Negro	
	Total(1)	Male	Female	Male	Fema
	Number Unemployed				
Hancock					
White Collar	80	50	30	0	
Blue Collar	161	108	20	24	
Service	66	12	25	4	2
Farm	0	0	0	0	
Harrison					
White Collar	494	93	344	4	5
Blue Collar	605	322	70	154	5
Service	347	49	133	53	11
Farm	32	10	0	10	
Hinds					
White Collar	654	201	301	32	11
Blue Collar	1155	339	103	515	19
Service	610	45	84	67	41
Farm	53	17	0	19	1
Holmes					
White Collar	47	0	18	0	2
Blue Collar	186	74	7	69	3
Service	76	3	0	4	6
Farm	114	9	7	56	4
Humphreys					
White Collar	12	5	7	0	
Blue Collar	80	24	4	43	
Service	22	0	0	0	2
Farm	74	22	0	37	1
Issaquena					
White Collar	5	0	0	0	
Blue Collar	20	5	0	6	
Service	10	0	0	0	1
Farm	5	0	0	5	
Itawamba					
White Collar	35	22	13	0	
Blue Collar	228	112	103	13	
Service	7	0	7	0	
Farm	26	26	0	0	
Jackson					
White Collar	369	80	234	17	3
Blue Collar	740	381	122	127	10
Service	164	30	74	0	6
Farm	0	0	0	0	
Jasper					
White Collar	31	9	22	0	
Blue Collar	117	75	9	17	1
Service	12	0	0	0	1
Farm	6	0	0	6	
Jefferson					
White Collar	23	0	0	6	1
Blue Collar	126	14	0	100	1
Service	23	0	7	5	1
Farm	11	0	0	6	
Jefferson Davis					
White Collar	36	0	20	0	1
Blue Collar	115	35	0	75	
Service	40	5	6	0	2
Farm	0	0	0	0	

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Jones					
White Collar	123	28	65	5	25
Blue Collar	290	164	46	67	13
Service	95	0	17	5	73
Farm	28	15	11	2	0
Kemper					
White Collar	12	0	8	0	4
Blue Collar	88	36	12	18	22
Service	4	0	0	0	4
Farm	26	0	0	15	11
Lafayette					
White Collar	72	38	28	6	0
Blue Collar	105	43	18	41	3
Service	51	0	11	14	26
Farm	4	0	0	4	0
Lamar					
White Collar	26	22	0	4	0
Blue Collar	219	121	91	7	0
Service	45	13	23	0	9
Farm	4	4	0	0	0
Lauderdale					
White Collar	181	50	92	3	36
Blue Collar	474	165	106	145	58
Service	227	6	76	13	132
Farm	3	0	0	0	3
Lawrence					
White Collar	33	9	24	0	0
Blue Collar	136	96	13	24	3
Service	11	0	0	0	11
Farm	18	0	0	11	7
Leake					
White Collar	9	0	9	0	0
Blue Collar	140	46	14	53	22
Service	23	7	0	0	16
Farm	5	0	0	5	0
Lee					
White Collar	96	42	51	3	0
Blue Collar	269	110	66	63	30
Service	46	4	29	0	13
Farm	12	5	0	3	4
Leflore					
White Collar	129	20	77	16	16
Blue Collar	293	45	66	111	71
Service	196	6	20	33	137
Farm	166	0	0	112	54
Lincoln					
White Collar	36	6	21	0	9
Blue Collar	157	100	13	23	21
Service	99	4	28	5	62
Farm	35	7	14	6	8
Lowndes					
White Collar	190	50	108	5	27
Blue Collar	383	78	106	143	56
Service	95	0	20	3	72
Farm	26	5	0	15	6

Table 26.-(continued)

Area and Occupation Category	Unemployed				
		White		Negro	
	Total(1)	Male	Female	Male	Female
	Number Unemployed				
Madison					
White Collar	22	6	7	0	9
Blue Collar	223	24	0	86	113
Service	46	6	5	7	28
Farm	25	0	0	17	8
Marion					
White Collar	39	4	29	0	6
Blue Collar	234	106	11	84	33
Service	45	0	16	3	26
Farm	15	0	0	11	4
Marshall					
White Collar	26	0	26	0	0
Blue Collar	214	73	56	64	21
Service	58	0	0	0	58
Farm	61	10	0	47	4
Monroe					
White Collar	52	21	31	0	0
Blue Collar	342	106	82	76	78
Service	64	11	8	4	41
Farm	62	23	0	35	4
Montgomery					
White Collar	50	15	10	6	19
Blue Collar	86	30	21	29	6
Service	46	0	0	4	42
Farm	14	0	0	3	11
Neshoba					
White Collar	59	40	19	0	0
Blue Collar	211	101	55	38	13
Service	49	0	5	15	29
Farm	14	0	4	10	0
Newton					
White Collar	48	24	24	0	0
Blue Collar	118	44	15	44	15
Service	28	0	6	0	22
Farm	0	0	0	0	0
Noxubee					
White Collar	44	0	4	16	24
Blue Collar	183	32	0	109	42
Service	69	0	5	9	55
Farm	87	0	0	63	24
Oktibbeha					
White Collar	181	85	76	5	11
Blue Collar	200	96	20	66	18
Service	106	28	11	4	63
Farm	20	4	6	5	5
Panola					
White Collar	29	4	16	9	0
Blue Collar	253	76	24	120	33
Service	146	9	4	16	117
Farm	98	21	0	40	37
Pearl River					
White Collar	112	33	70	9	0
Blue Collar	255	143	47	54	11
Service	115	13	16	4	82
Farm	18	5	0	13	0

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Perry					
White Collar	5	0	0	0	5
Blue Collar	75	44	20	3	8
Service	14	0	6	3	5
Farm	3	0	0	0	3
Pike					
White Collar	58	7	38	0	13
Blue Collar	222	82	69	49	22
Service	87	4	14	0	69
Farm	13	5	0	8	0
Pontotoc					
White Collar	70	22	39	3	6
Blue Collar	153	109	21	12	11
Service	33	0	8	7	18
Farm	6	6	0	0	0
Prentiss					
White Collar	51	35	16	0	0
Blue Collar	309	138	145	16	10
Service	37	20	17	0	0
Farm	9	9	0	0	0
Quitman					
White Collar	41	13	9	0	19
Blue Collar	138	35	18	59	26
Service	63	0	4	8	51
Farm	103	18	0	66	19
Rankin					
White Collar	100	33	62	0	5
Blue Collar	232	109	56	40	27
Service	91	15	5	7	64
Farm	33	17	0	10	6
Scott					
White Collar	47	12	27	0	8
Blue Collar	129	23	40	47	19
Service	4	0	0	0	4
Farm	4	0	0	4	0
Sharkey					
White Collar	69	11	11	0	47
Blue Collar	88	14	20	20	34
Service	40	5	0	0	35
Farm	134	7	0	76	51
Simpson					
White Collar	34	15	15	4	0
Blue Collar	80	49	10	9	12
Service	4	0	0	0	4
Farm	7	0	0	7	0
Smith					
White Collar	5	5	0	0	0
Blue Collar	74	32	22	13	7
Service	21	0	0	0	21
Farm	18	0	0	13	5
Stone					
White Collar	19	9	5	0	5
Blue Collar	29	8	0	17	4
Service	0	0	0	0	0
Farm	0	0	0	0	0

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Sunflower					
White Collar	108	12	45	9	42
Blue Collar	266	43	45	119	53
Service	140	0	6	4	130
Farm	260	30	0	142	88
Tallahatchie					
White Collar	19	5	14	0	0
Blue Collar	115	52	20	29	14
Service	63	0	5	7	51
Farm	22	10	0	67	15
Tate					
White Collar	35	4	24	3	4
Blue Collar	157	42	16	55	44
Service	44	0	4	0	40
Farm	30	0	0	19	11
Tippah					
White Collar	30	12	18	0	0
Blue Collar	121	39	53	14	15
Service	8	0	4	0	4
Farm	11	0	0	0	11
Tishomingo					
White Collar	45	27	14	4	0
Blue Collar	458	228	208	0	22
Service	9	6	3	0	0
Farm	6	6	0	0	0
Tunica					
White Collar	19	0	6	13	0
Blue Collar	38	7	0	25	6
Service	30	4	3	0	23
Farm	185	19	0	134	32
Union					
White Collar	42	13	29	0	0
Blue Collar	158	53	59	25	21
Service	29	4	10	0	15
Farm	25	6	0	19	0
Walthall					
White Collar	38	8	0	3	27
Blue Collar	71	45	0	19	7
Service	13	5	0	4	4
Farm	6	0	0	0	6
Warren					
White Collar	161	28	94	4	35
Blue Collar	265	95	11	128	31
Service	167	5	29	17	116
Farm	14	3	0	11	0
Washington					
White Collar	244	34	91	49	70
Blue Collar	694	155	39	378	122
Service	391	24	16	31	320
Farm	209	18	24	133	34
Wayne					
White Collar	46	21	12	7	6
Blue Collar	88	36	23	25	4
Service	47	0	0	3	44
Farm	8	0	0	4	4

Table 26.-(continued)

Area and Occupation Category	Unemployed				
	Total(1)	White		Negro	
		Male	Female	Male	Female
	Number Unemployed				
Webster					
White Collar	8	0	5	0	3
Blue Collar	88	35	26	23	4
Service	39	0	14	0	25
Farm	0	0	0	0	0
Wilkinson					
White Collar	26	0	0	4	22
Blue Collar	233	25	15	122	71
Service	55	0	0	5	50
Farm	47	0	0	42	5
Winston					
White Collar	60	5	45	0	10
Blue Collar	188	105	19	41	17
Service	35	0	8	0	27
Farm	12	6	0	0	6
Yalobusha					
White Collar	6	0	6	0	0
Blue Collar	119	34	7	19	59
Service	12	0	0	0	12
Farm	12	0	0	3	9
Yazoo					
White Collar	49	22	12	6	9
Blue Collar	111	6	12	63	30
Service	133	0	15	15	103
Farm	25	6	0	13	6

Source: U. S. Bureau of the Census, 1970 Census of Population, Report PC(1)-C1, Table 93, Report PC 1)-D1 (Washington, D. C.: USGPO), Table 287; Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Tabs 70 and 54.

TABLE 27.-PERCENT OF PERSONS 16 YEARS OLD AND OLDER EMPLOYED, BY INDUSTRY GROUP SEX AND RACE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
United States										
Total	4.5	6.0	25.9	6.7	20.0	8.1	1.5	13.5	8.0	5.5
Male	6.5	9.0	29.8	8.5	19.1	7.6	0.2	8.4	4.8	6.1
Female	1.2	0.9	19.8	4.0	21.8	8.9	3.5	22.3	13.2	4.4
White	4.6	6.0	26.2	6.7	20.7	8.4	0.8	13.8	8.0	5.3
Negro	3.8	5.3	24.3	6.8	13.8	5.6	7.4	17.7	7.8	6.6

(1) Each row of percents sums to 100 percent, plus or minus variation due to rounding.

(2) Includes Agriculture, Forestry, Fisheries, and Mining.

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
South										
Total	5.9	7.3	23.1	6.8	19.8	7.3	2.4	13.1	7.8	6.4
Male	8.5	11.2	25.6	8.7	19.3	7.1	0.3	7.9	5.7	7.0
Female	1.6	1.0	19.2	3.6	20.8	7.6	5.8	21.4	13.4	5.3
White	5.8	7.4	23.4	6.9	21.1	8.0	0.8	12.4	7.4	6.5
Negro	6.6	6.6	21.6	6.0	13.7	3.7	10.7	16.2	9.1	5.5
E.S.C.(3)										
Total	6.4	7.0	28.1	6.5	18.7	6.1	2.7	12.0	7.8	4.6
Male(4)	9.6	10.7	30.5	8.6	18.1	6.0	0.4	7.1	4.1	5.2
Mississippi										
Total	8.5	7.5	25.9	6.0	17.9	5.3	4.1	11.7	9.0	4.2
Male	12.9	11.7	27.7	7.7	18.1	5.4	0.5	6.6	4.4	4.9
Female	1.7	0.9	22.9	3.1	17.7	5.2	9.6	19.8	16.2	2.9
White	7.0	7.9	26.4	6.4	20.7	6.7	0.5	11.7	7.5	5.2
Negro	12.3	6.4	24.5	4.8	11.0	1.9	13.7	11.9	12.7	1.6
Adams										
Total	7.4	4.9	24.4	5.3	22.4	4.9	6.6	12.9	9.1	2.2
Male	11.2	7.5	34.4	5.4	21.4	4.8	1.7	6.8	3.6	3.1
Female	0.9	0.5	7.7	5.0	24.1	5.0	14.8	23.1	18.2	0.7
White	7.8	4.7	25.7	5.9	26.4	6.7	0.5	13.3	6.0	2.9
Negro	6.6	5.1	22.3	4.2	16.0	2.1	16.3	12.4	14.0	1.1
Alcorn										
Total	4.7	5.6	42.3	6.4	17.0	4.9	2.0	10.2	4.2	2.8
Male	7.4	9.0	37.6	9.2	19.1	5.5	0.5	6.5	1.8	3.5
Female	0.3	0.1	49.7	2.0	13.6	3.9	4.5	16.1	8.1	1.7
White	4.6	5.7	44.2	6.4	16.8	5.0	0.3	10.1	4.2	2.7
Negro	4.8	4.3	25.4	6.9	8.4	3.6	17.3	11.6	4.5	3.2
Amite										
Total	14.5	7.3	34.0	6.8	12.8	1.5	5.9	5.5	8.6	3.0
Male	20.7	11.1	36.6	9.0	11.3	1.4	0.3	3.7	3.0	2.9
Female	2.7	0.0	29.1	2.6	15.8	1.7	16.9	8.8	19.3	3.2
White	15.0	8.4	30.6	6.9	17.4	1.9	0.4	7.6	7.4	4.5
Negro	13.8	5.8	38.9	6.7	6.4	1.0	13.8	2.4	10.3	0.9
Attala										
Total	8.2	7.3	32.9	5.5	19.5	4.0	5.1	8.5	6.7	2.3
Male	12.2	11.2	35.9	8.4	19.0	4.3	0.3	3.5	2.6	2.7
Female	1.6	0.7	27.7	0.8	20.4	3.5	13.3	16.9	13.6	1.7
White	6.4	6.6	34.1	4.9	25.4	5.3	0.5	9.1	5.2	2.7
Negro	12.0	8.8	30.1	7.0	6.7	1.2	15.5	7.2	10.2	1.4
Benton										
Total	15.8	5.8	35.0	5.5	10.3	2.9	4.2	3.6	11.6	5.5
Male	24.9	9.7	33.0	6.4	10.2	4.0	1.2	2.9	3.1	4.7
Female	2.2	0.0	37.9	4.2	10.4	1.2	8.6	4.6	24.3	6.6
White	12.6	6.7	38.5	5.6	13.6	4.0	1.6	3.3	7.9	6.2
Negro	22.8	3.8	27.2	5.2	3.0	0.4	9.9	4.2	19.7	3.8
Bolivar										
Total	17.3	5.1	17.8	5.4	16.7	2.9	6.5	10.9	15.1	2.4
Male	27.8	8.3	17.5	7.5	18.2	3.0	1.0	6.7	7.6	2.6
Female	2.6	0.6	18.3	2.4	14.7	2.7	14.2	16.6	25.7	2.1
White	14.4	5.9	21.1	6.3	22.0	4.4	0.9	10.1	12.0	2.9
Negro	20.9	4.2	14.0	4.2	10.2	1.0	13.4	11.6	18.9	1.7

(3) East South Central

(4) Female, White and Negro for East South Central were not available.

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Calhoun										
Total	14.2	5.8	40.3	3.1	14.3	3.3	3.0	8.1	5.8	2.3
Male	21.3	9.0	37.4	4.1	14.4	3.9	0.3	4.4	2.6	2.6
Female	1.4	0.0	45.4	1.4	14.1	2.1	7.8	14.6	11.6	1.6
White	13.2	6.7	40.0	3.7	16.4	3.9	0.8	8.3	4.4	2.6
Negro	18.0	2.0	41.2	0.8	6.3	0.9	11.2	7.0	11.5	0.8
Carroll										
Total	20.8	8.0	23.4	6.8	17.1	3.1	2.6	8.3	6.5	3.5
Male	30.1	12.1	22.3	7.1	16.1	3.4	0.2	2.8	3.1	3.0
Female	2.7	0.0	25.6	6.1	19.2	2.6	7.4	18.9	12.9	4.7
White	13.7	8.5	25.1	4.3	23.8	4.0	0.3	10.2	4.9	5.1
Negro	32.9	7.0	20.4	11.0	5.6	1.5	6.7	4.9	9.1	0.9
Chickasaw										
Total	8.7	4.5	47.4	4.0	13.2	3.2	3.6	7.4	5.1	2.9
Male	13.4	7.4	46.9	5.5	12.9	3.1	0.1	4.4	2.8	3.6
Female	1.6	0.0	48.2	1.6	13.8	3.4	8.8	12.1	8.7	1.9
White	6.5	4.3	49.8	4.0	15.6	4.0	0.2	8.0	3.9	3.9
Negro	14.5	5.1	41.2	3.9	7.3	1.2	12.3	5.9	8.2	0.5
Choctaw										
Total	4.8	9.7	43.9	5.1	10.8	2.3	3.8	8.2	8.9	2.7
Male	7.6	15.5	46.8	6.8	9.3	2.6	0.5	4.7	3.6	2.6
Female	0.0	0.0	39.1	2.2	13.3	1.8	9.2	13.9	17.6	2.9
White	6.0	10.1	44.9	5.1	12.9	3.0	0.5	6.2	8.0	3.3
Negro	0.7	8.2	40.4	5.0	3.8	0.0	14.7	14.6	12.0	0.7
Claiborne										
Total	8.4	4.6	30.6	5.6	11.3	2.4	7.5	5.4	20.3	4.0
Male	14.0	7.4	39.7	5.1	11.3	1.0	1.6	3.2	10.7	6.2
Female	0.3	0.6	17.4	6.2	11.4	4.4	16.1	8.6	34.3	0.7
White	8.0	5.7	32.5	8.9	13.7	4.1	0.7	8.1	8.9	9.4
Negro	8.6	4.0	29.4	4.6	9.9	1.3	11.6	3.7	27.2	0.7
Clarke										
Total	8.1	5.2	34.8	4.1	16.9	2.9	4.1	7.6	8.4	2.8
Male	12.4	7.9	41.7	6.1	17.9	3.3	1.1	3.2	3.4	3.0
Female	1.2	0.9	36.8	0.9	15.3	2.4	8.9	14.6	16.4	2.5
White	8.9	5.9	38.4	2.4	20.9	3.5	0.6	7.9	5.9	3.8
Negro	6.0	3.4	43.5	3.3	6.1	1.4	13.6	7.0	15.3	0.3
Clay										
Total	6.3	5.0	34.8	3.7	17.3	3.8	5.7	9.7	11.0	2.8
Male	10.2	8.2	43.5	5.1	14.4	4.0	0.8	5.8	4.8	3.3
Female	0.3	0.0	21.6	1.6	21.7	3.6	13.1	15.8	20.5	2.0
White	5.7	4.9	34.4	3.6	22.9	5.5	0.3	10.7	8.0	4.0
Negro	7.1	5.2	35.4	3.8	8.3	1.2	14.3	8.1	15.8	0.7
Coahoma										
Total	16.8	4.6	12.7	6.7	17.7	5.6	7.1	12.8	13.0	3.6
Male	26.6	7.3	16.3	7.5	18.7	5.9	1.3	7.2	5.3	3.9
Female	1.8	0.4	7.3	4.1	16.2	5.0	16.0	21.3	24.7	3.1
White	9.6	4.9	15.3	7.5	23.3	8.5	0.4	15.6	9.5	5.6
Negro	24.9	4.4	10.3	4.8	10.3	2.5	14.4	10.0	16.8	1.5
Copiah										
Total	10.4	7.7	32.5	5.2	14.8	4.4	4.8	8.7	8.4	3.1
Male	15.0	12.3	32.2	5.9	15.5	4.5	1.3	5.5	3.8	4.0
Female	3.1	0.2	33.1	3.9	13.8	4.2	10.3	13.8	15.8	1.7
White	8.8	7.7	29.6	5.4	18.9	6.6	0.6	10.0	7.9	4.5
Negro	12.6	7.7	36.8	4.8	8.9	1.3	10.9	6.8	9.1	1.2

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Covington										
Total	11.2	12.3	30.5	5.9	16.3	2.7	3.0	8.3	7.4	2.5
Male	15.2	19.7	27.6	7.4	16.2	2.9	0.2	4.1	4.1	2.6
Female	4.6	0.0	35.4	3.3	16.5	2.3	7.6	15.3	12.8	2.2
White	12.1	12.4	26.6	7.1	19.7	3.7	1.3	8.5	5.6	3.0
Negro	8.5	12.0	41.8	2.2	6.6	0.0	8.0	7.9	12.3	0.9
De Soto										
Total	8.0	7.9	29.0	11.2	19.7	5.8	3.1	8.2	4.6	2.6
Male	11.3	11.5	28.4	14.7	19.3	4.8	0.3	4.6	2.2	2.9
Female	1.3	0.5	30.2	4.0	20.6	7.9	8.6	15.6	9.5	2.0
White	4.4	8.4	28.0	13.1	22.5	6.8	0.4	8.9	4.2	3.3
Negro	19.1	6.5	32.2	5.1	10.7	2.8	11.4	6.0	5.7	0.7
Forrest										
Total	2.9	6.9	17.2	7.6	22.6	7.1	3.4	13.4	14.3	4.7
Male	4.6	11.3	21.0	9.5	23.9	8.0	0.4	7.0	8.3	6.1
Female	0.6	0.7	11.8	5.0	20.7	5.8	7.6	22.3	22.6	2.7
White	3.2	7.2	15.6	7.9	24.4	8.1	0.3	13.2	14.4	5.6
Negro	1.6	5.5	23.0	6.5	15.8	3.4	14.9	14.0	13.8	1.5
Franklin										
Total	11.3	8.2	30.1	5.9	14.5	3.5	5.0	10.6	9.1	1.9
Male	17.0	12.5	33.6	6.7	14.6	3.8	0.6	6.0	2.4	2.8
Female	0.6	0.0	23.6	4.3	14.4	2.9	13.2	19.3	21.7	0.0
White	12.9	8.7	30.3	4.5	15.8	4.9	0.6	11.2	8.5	2.6
Negro	7.3	6.7	29.5	9.2	11.3	0.0	16.0	9.2	10.7	0.0
George										
Total	5.3	11.5	36.0	6.3	17.3	2.8	1.1	8.4	8.3	3.2
Male	6.9	16.0	40.5	6.8	14.2	2.5	0.0	5.0	3.7	4.2
Female	1.2	0.5	24.9	4.9	24.7	3.3	3.8	16.5	19.6	0.5
White	5.7	12.1	36.1	6.6	17.3	3.1	0.1	7.8	7.8	3.5
Negro	0.8	5.9	35.3	2.8	17.4	0.0	10.6	13.7	13.5	0.0
Greene										
Total	8.0	7.0	42.8	7.2	10.5	2.6	2.3	5.1	10.7	3.9
Male	11.1	9.9	47.0	9.7	10.2	1.7	0.2	0.8	4.8	4.5
Female	1.7	1.0	34.1	2.1	11.2	4.5	6.5	13.9	22.6	2.5
White	9.3	7.7	41.5	7.7	10.9	2.9	0.6	5.5	9.8	4.1
Negro	1.7	3.4	49.2	4.8	8.6	1.0	10.3	3.4	14.9	2.9
Grenada										
Total	5.7	6.9	36.5	5.8	17.2	3.8	3.1	13.5	4.8	2.7
Male	9.0	11.8	37.5	5.6	17.5	4.2	0.4	8.7	1.6	3.6
Female	1.1	0.2	35.1	6.1	16.7	3.3	6.8	20.1	9.2	1.5
White	3.5	7.3	35.0	7.6	21.2	5.2	0.3	13.4	2.8	3.7
Negro	9.9	6.3	39.4	2.3	9.2	1.1	8.7	13.6	8.9	0.8
Hancock										
Total	3.6	15.1	19.0	8.8	17.7	5.0	3.4	11.6	10.5	5.4
Male	5.2	21.9	22.2	11.6	15.4	4.2	1.9	6.8	4.7	6.1
Female	0.2	1.6	12.6	3.5	22.1	6.5	6.5	21.1	22.1	3.9
White	3.9	16.0	20.9	9.1	18.2	5.5	1.0	10.4	9.6	5.4
Negro	1.5	10.0	7.9	7.2	15.0	2.1	17.4	18.6	16.0	4.3
Harrison										
Total	2.1	11.5	12.1	7.6	20.8	7.3	2.4	17.6	7.3	11.3
Male	3.1	17.7	14.8	9.8	19.2	7.4	0.5	11.6	2.8	13.3
Female	0.6	1.3	7.6	4.0	23.5	7.3	5.5	27.4	14.6	8.2
White	2.1	11.6	12.1	7.6	22.7	8.2	0.6	15.6	7.2	12.5
Negro	2.1	10.6	12.1	7.6	12.4	3.4	10.7	27.1	7.8	6.2

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Admi.
	Percent									
Hinds										
Total	2.8	7.0	13.8	7.4	20.7	11.0	3.9	17.5	9.7	6.3
Male	4.1	11.1	17.7	9.3	22.3	11.0	0.5	11.1	5.3	7.7
Female	1.0	1.3	8.4	4.7	18.7	11.1	8.6	26.2	15.7	4.4
White	2.4	6.2	12.3	8.2	23.4	14.4	0.3	16.9	8.0	7.9
Negro	3.7	8.6	17.2	5.5	14.8	3.4	12.0	18.7	13.6	2.6
Holmes										
Total	21.6	6.8	16.6	5.1	16.1	3.0	4.5	10.2	12.5	3.6
Male	33.6	11.1	14.8	7.8	15.3	2.7	0.5	4.8	5.2	4.1
Female	3.5	0.4	19.2	1.1	17.2	3.3	10.6	18.4	23.4	2.8
White	14.5	7.4	19.3	5.7	22.5	4.6	0.4	11.4	7.8	6.4
Negro	28.5	6.3	14.0	4.5	9.7	1.4	8.5	9.1	17.0	1.0
Humphreys										
Total	34.0	6.1	10.1	3.3	15.8	3.4	6.2	10.1	8.7	2.3
Male	51.6	9.4	6.1	4.8	15.0	3.7	0.3	3.1	3.8	2.3
Female	4.2	0.4	16.8	0.9	17.2	2.9	16.2	22.0	17.1	2.4
White	25.9	7.5	15.0	3.2	23.8	6.6	0.0	10.3	3.9	3.9
Negro	42.0	4.7	5.0	3.5	8.0	0.2	12.3	10.0	13.5	0.8
Issaquena										
Total	52.9	2.7	9.1	4.3	10.0	1.3	4.1	2.7	6.5	6.4
Male	69.2	3.7	5.5	4.6	6.6	1.8	0.0	0.9	0.9	6.8
Female	9.3	0.0	18.6	3.4	19.1	0.0	15.2	7.4	21.6	5.4
White	53.6	2.0	12.0	2.7	14.0	0.0	1.7	3.7	1.0	9.3
Negro	52.1	3.5	5.6	6.1	5.3	2.9	7.0	1.5	13.2	2.9
Itawamba										
Total	5.7	8.6	50.5	3.1	12.9	4.2	1.0	5.5	6.4	2.2
Male	8.7	13.5	43.6	4.1	15.0	5.2	0.1	2.7	4.2	2.8
Female	1.1	1.2	60.8	1.6	9.7	2.6	2.5	9.6	9.7	1.2
White	5.8	8.9	50.5	2.9	13.3	4.4	0.7	5.4	6.1	2.2
Negro	3.1	3.1	52.2	7.5	5.4	0.0	7.6	6.6	12.3	2.2
Jackson										
Total	1.6	8.8	41.0	3.7	15.8	4.9	1.8	10.3	7.5	4.6
Male	2.1	12.4	50.5	4.5	13.2	4.4	0.2	5.3	2.8	4.5
Female	0.6	1.2	20.5	1.9	21.5	5.9	5.2	21.1	17.5	4.7
White	1.6	8.9	41.2	3.9	16.8	5.3	0.4	10.3	6.5	5.2
Negro	1.9	8.2	39.7	2.8	10.3	2.7	9.3	10.7	12.9	1.6
Jasper										
Total	10.6	9.1	34.3	6.5	15.2	3.3	2.5	7.8	8.4	2.4
Male	16.4	13.6	35.1	9.1	12.7	3.3	0.3	3.2	4.1	2.3
Female	0.2	1.0	33.1	1.8	19.7	3.2	6.5	16.0	16.1	2.6
White	13.0	10.8	29.7	6.7	19.5	4.9	0.2	6.9	5.0	3.5
Negro	6.5	6.1	42.4	6.3	7.8	0.5	6.5	9.2	14.2	0.6
Jefferson										
Total	10.0	10.6	24.2	10.7	14.7	1.8	4.6	8.8	9.6	5.1
Male	13.1	14.8	30.0	14.1	12.4	1.5	1.0	3.1	4.0	6.0
Female	3.8	2.2	12.9	3.9	19.2	2.5	11.6	20.1	20.5	3.3
White	12.1	7.1	25.5	11.5	17.2	2.4	0.0	11.1	5.2	8.1
Negro	8.6	12.8	23.5	10.1	13.2	1.5	7.5	7.4	12.4	3.2
Jefferson Davis										
Total	16.4	8.4	24.0	6.1	14.6	3.6	3.6	10.6	9.5	3.3
Male	23.4	12.9	20.9	8.4	14.8	3.4	0.3	7.8	4.5	3.6
Female	3.0	0.0	29.9	1.7	14.4	3.9	9.7	15.9	18.9	2.7
White	17.3	8.6	18.4	5.1	20.3	5.2	1.0	13.3	5.3	5.4
Negro	14.9	8.2	32.6	7.6	6.0	1.1	7.5	6.5	15.8	0.0

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Jones										
Total	9.9	7.3	24.8	6.6	18.9	5.2	3.5	13.4	7.7	2.7
Male	14.0	11.3	28.8	8.5	19.4	4.8	0.4	6.6	3.1	3.1
Female	2.8	0.3	17.8	3.3	18.0	6.0	9.0	25.1	15.7	2.2
White	10.9	7.6	23.3	7.3	21.1	6.3	0.6	13.2	6.6	3.2
Negro	5.9	6.2	30.5	3.7	9.9	1.1	15.8	14.2	12.0	0.9
Kemper										
Total	17.2	8.6	26.8	5.8	11.1	3.3	3.4	7.3	10.6	5.8
Male	23.0	12.2	31.5	7.4	10.7	3.3	0.0	2.5	4.1	5.3
Female	4.1	0.5	16.1	2.1	12.0	3.3	11.3	18.2	25.6	6.9
White	17.9	7.5	22.1	4.7	17.0	4.4	0.4	8.6	8.1	9.5
Negro	15.8	10.2	32.2	7.3	4.4	2.1	7.3	5.0	13.3	1.5
Lafayette										
Total	6.0	6.1	11.7	4.5	15.3	4.2	4.2	14.5	29.1	4.5
Male	9.5	9.5	12.0	6.6	15.8	4.7	1.4	9.3	25.3	5.8
Female	1.1	1.3	11.1	1.5	14.5	3.6	8.0	21.8	34.4	2.6
White	4.8	6.1	11.8	4.9	17.4	4.8	0.6	14.3	29.7	5.7
Negro	9.9	6.4	11.5	3.4	8.4	2.7	15.7	15.5	25.8	0.7
Lamar										
Total	8.1	13.9	29.2	5.2	17.5	5.1	1.8	8.7	7.4	3.2
Male	10.8	20.4	27.1	6.6	16.3	5.3	0.0	5.2	5.4	3.0
Female	2.8	0.6	33.3	2.5	19.7	4.8	5.4	15.7	11.5	3.6
White	8.0	15.0	28.0	5.6	18.1	5.6	0.8	8.8	7.1	3.0
Negro	8.7	4.3	39.2	2.0	11.8	1.0	10.3	7.5	10.1	5.1
Lauderdale										
Total	2.0	6.7	19.2	8.9	22.9	6.2	4.1	17.1	7.4	5.6
Male	2.7	10.8	24.1	11.4	22.8	6.9	0.5	10.4	3.1	7.2
Female	1.0	0.8	12.2	5.3	23.0	5.1	9.1	26.7	13.4	3.5
White	1.5	6.8	18.5	10.2	25.5	6.9	0.3	16.7	6.5	7.0
Negro	3.4	6.3	21.2	5.0	15.3	4.0	14.9	18.5	9.9	1.6
Lawrence										
Total	9.7	9.5	31.5	6.2	15.3	3.8	4.4	8.4	8.6	2.5
Male	14.4	14.5	32.3	9.4	14.0	4.1	0.5	4.0	4.2	2.6
Female	1.8	1.0	30.2	1.0	17.5	3.4	10.9	15.9	16.2	2.3
White	11.2	10.7	32.8	4.3	16.1	4.5	0.2	10.0	7.3	3.0
Negro	4.9	5.6	27.4	12.6	12.4	1.7	18.0	3.3	13.2	1.0
Leake										
Total	14.4	10.8	32.8	4.2	13.6	2.8	2.1	9.4	6.9	3.0
Male	21.2	16.6	25.7	6.2	14.8	3.2	0.0	5.8	2.6	4.1
Female	2.6	0.7	45.3	0.8	11.7	2.0	5.7	15.8	14.3	1.1
White	14.4	11.8	32.2	3.5	17.3	3.7	0.4	9.2	3.9	3.7
Negro	15.0	9.4	32.4	5.9	6.2	0.8	6.2	9.4	13.4	1.3
Lee										
Total	4.6	5.8	33.8	4.9	22.2	6.5	2.4	12.4	4.8	2.7
Male	7.3	9.5	33.4	5.7	25.4	6.6	0.2	7.0	1.7	3.4
Female	0.7	0.5	34.4	3.6	17.6	6.4	5.7	20.3	9.2	1.7
White	3.9	6.0	33.8	5.1	24.5	7.4	0.5	11.4	4.1	3.2
Negro	7.5	4.9	33.5	3.4	10.9	2.2	11.8	17.4	8.2	0.1
Leflore										
Total	12.1	5.6	16.1	6.3	20.6	4.7	7.0	11.6	12.4	3.8
Male	19.7	9.1	16.8	7.8	23.5	4.9	0.9	5.8	6.7	4.7
Female	1.2	0.6	15.0	4.1	16.3	4.3	15.8	19.8	20.6	2.4
White	7.1	6.3	14.8	8.4	30.0	7.2	0.6	13.2	6.6	6.0
Negro	17.8	4.9	17.6	4.0	9.4	1.8	14.4	9.9	19.1	1.2

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Lincoln										
Total	11.4	8.4	27.6	5.5	18.2	4.7	4.3	10.2	7.1	2.5
Male	16.5	13.0	28.5	7.0	18.2	4.6	0.6	5.3	3.3	3.0
Female	2.7	0.6	26.1	2.9	18.3	4.8	10.6	18.7	13.7	1.7
White	14.1	8.6	28.4	6.1	20.4	5.3	0.5	9.0	5.0	2.6
Negro	3.3	8.1	25.2	3.5	11.6	2.5	15.9	13.9	13.7	2.4
Lowndes										
Total	4.2	5.2	26.2	6.0	19.2	5.8	5.7	11.9	11.4	4.5
Male	6.2	8.9	30.6	8.6	20.0	6.1	0.8	8.3	4.1	6.3
Female	1.8	0.7	20.7	2.8	18.1	5.3	11.8	16.2	20.3	2.3
White	2.9	5.4	27.2	6.8	22.1	7.3	0.6	10.9	11.1	5.8
Negro	7.3	4.8	23.8	4.2	12.2	2.0	18.4	14.2	12.0	1.3
Madison										
Total	9.7	5.2	29.9	4.6	17.8	4.3	5.7	8.9	10.3	3.7
Male	15.3	8.2	34.1	6.2	16.7	4.0	0.9	4.6	5.6	4.5
Female	0.9	0.4	23.2	2.0	19.5	4.8	13.5	15.6	17.8	2.3
White	6.5	4.3	26.7	5.5	26.2	7.4	0.2	9.9	7.6	5.9
Negro	12.9	6.1	33.1	3.7	9.5	1.3	11.2	7.9	13.0	1.5
Marion										
Total	10.0	10.8	29.2	4.8	18.5	3.7	2.9	10.3	6.6	3.3
Male	15.4	17.3	25.8	6.2	19.3	4.5	0.2	4.8	1.9	4.6
Female	1.6	0.7	34.4	2.7	17.2	2.5	6.9	18.8	13.9	1.3
White	10.7	9.5	27.8	5.0	21.7	4.5	0.6	10.4	5.8	4.1
Negro	7.7	15.0	33.6	4.1	7.7	1.3	10.5	10.0	9.6	0.6
Marshall										
Total	14.2	8.0	29.0	4.7	14.0	3.9	4.3	7.1	12.0	2.9
Male	20.5	11.6	29.7	6.3	12.9	4.3	0.7	4.4	5.7	3.9
Female	2.1	0.9	27.6	1.6	15.0	3.1	11.5	12.4	24.1	1.0
White	8.1	7.5	34.2	5.5	18.5	6.7	0.5	8.3	6.1	4.7
Negro	20.7	8.5	23.6	3.9	9.2	1.0	8.4	5.9	17.9	1.0
Monroe										
Total	7.2	4.2	46.7	5.9	13.9	3.4	4.2	7.2	4.3	3.1
Male	11.5	7.1	41.1	9.1	15.9	4.3	0.3	3.9	2.4	4.5
Female	1.5	0.2	54.1	1.8	11.4	2.3	9.3	11.6	6.7	1.2
White	6.2	4.5	48.5	6.4	15.1	4.0	0.4	7.1	3.8	3.8
Negro	10.4	2.9	40.8	4.5	9.9	1.3	16.4	7.5	5.5	0.8
Montgomery										
Total	12.4	4.8	35.1	3.0	18.3	3.0	4.6	10.6	4.7	3.6
Male	17.9	7.5	36.8	4.1	18.2	3.5	1.1	4.2	2.4	4.3
Female	3.3	0.3	32.4	1.2	18.5	2.2	10.3	21.1	8.5	2.3
White	9.5	4.9	39.1	2.8	20.8	3.8	0.6	10.4	3.5	4.6
Negro	18.7	4.3	25.0	3.5	12.8	1.3	13.5	11.1	7.5	1.4
Neshoba										
Total	8.8	8.4	36.7	4.2	13.7	2.8	2.4	11.5	7.2	5.0
Male	12.1	13.5	35.6	6.1	13.6	3.2	0.2	7.4	3.0	5.3
Female	3.7	0.8	38.3	1.3	12.3	2.1	5.7	17.8	13.6	4.4
White	7.3	8.9	37.9	4.8	14.6	3.1	0.3	12.7	4.9	5.4
Negro	14.6	4.8	33.6	1.9	8.1	1.9	14.0	6.4	14.7	0.0
Newton										
Total	9.5	8.1	32.3	5.2	14.6	3.7	3.5	9.8	8.6	4.7
Male	13.5	12.8	28.8	8.1	15.7	3.5	0.6	5.3	5.8	5.9
Female	3.4	0.8	37.8	0.7	13.0	4.2	7.9	16.6	12.9	2.8
White	8.0	9.7	32.3	5.5	15.7	4.8	0.5	9.8	8.1	5.6
Negro	14.3	2.2	33.6	3.0	11.5	0.5	13.5	9.9	8.8	1.7

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufacturing	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Noxubee										
Total	23.4	5.9	22.2	2.7	18.9	2.7	9.5	7.8	5.0	1.9
Male	32.6	8.6	24.1	3.3	18.3	2.7	0.9	4.6	2.8	2.1
Female	6.0	0.9	18.6	1.5	20.0	2.7	25.9	13.8	9.3	1.4
White	19.6	5.8	21.9	2.7	26.7	4.1	0.6	9.1	6.0	3.5
Negro	27.3	6.1	22.3	2.7	11.1	1.3	18.5	6.5	4.1	0.3
Oktibbeha										
Total	6.7	5.0	14.3	2.7	13.4	3.8	5.0	11.1	34.9	3.1
Male	10.0	7.7	17.4	3.4	14.1	3.4	0.9	7.6	32.1	3.3
Female	1.3	0.6	9.2	1.6	12.3	4.4	11.7	16.7	39.4	2.9
White	5.4	5.1	13.7	2.4	14.5	4.6	0.6	11.5	38.5	3.9
Negro	10.4	4.9	15.9	3.6	10.8	1.6	17.2	10.0	24.2	1.2
Panola										
Total	14.6	7.9	28.7	6.2	18.3	2.3	5.7	7.2	6.3	2.8
Male	22.8	12.6	22.5	9.4	19.3	2.9	0.5	4.0	2.6	3.4
Female	1.4	0.4	38.6	0.9	16.7	1.5	14.0	12.3	12.2	1.9
White	10.7	8.9	29.7	7.2	23.8	3.0	0.5	7.8	4.2	4.3
Negro	20.8	6.4	27.1	4.5	9.7	1.3	13.9	6.4	9.5	0.6
Pearl River										
Total	6.3	12.4	31.1	6.1	15.5	6.2	2.9	9.0	7.0	3.5
Male	8.8	18.3	33.0	8.3	13.3	6.2	0.6	4.5	2.6	4.3
Female	1.1	0.0	27.1	1.6	20.0	6.2	7.8	18.2	16.2	1.8
White	6.7	13.1	30.5	6.3	16.4	6.6	0.9	8.9	6.6	3.9
Negro	4.4	9.1	33.6	5.1	10.9	4.3	12.7	9.6	9.0	1.4
Perry										
Total	9.7	9.8	38.7	3.7	13.7	2.4	2.1	7.1	9.0	3.9
Male	11.7	15.3	44.3	5.4	11.9	1.7	0.2	1.8	2.7	5.0
Female	6.3	0.4	29.2	0.9	16.7	3.4	5.3	16.2	19.7	2.0
White	9.5	10.8	36.9	2.9	16.1	3.0	0.8	7.5	8.3	4.4
Negro	10.7	6.4	45.7	6.7	4.9	0.0	6.1	5.9	11.4	2.1
Pike										
Total	4.9	6.4	24.5	11.8	20.2	4.7	5.3	11.2	7.9	3.2
Male	7.4	10.1	27.1	16.8	20.1	4.8	0.6	6.3	3.1	3.8
Female	1.2	0.6	20.4	4.0	20.2	4.5	12.6	18.9	15.6	2.1
White	5.9	6.9	22.2	13.2	23.6	6.2	0.3	11.5	6.0	4.3
Negro	3.2	5.4	28.8	9.3	13.8	2.0	14.4	10.6	11.6	1.1
Pontotoc										
Total	10.1	7.0	39.3	3.4	16.2	3.3	4.4	8.5	5.8	2.1
Male	16.2	11.5	35.2	4.8	16.9	4.0	0.5	5.0	3.2	2.7
Female	1.4	0.5	45.1	1.5	15.1	2.2	10.1	13.5	9.4	1.3
White	9.7	7.2	40.9	3.8	17.1	3.6	1.7	8.4	5.3	2.4
Negro	12.8	5.7	30.5	1.4	11.2	1.2	19.0	9.2	8.4	0.8
Prentiss										
Total	7.1	7.7	44.6	2.6	15.1	4.2	2.0	8.7	6.3	1.7
Male	12.2	13.4	34.9	3.9	19.0	5.6	0.1	4.2	4.3	2.5
Female	0.6	0.6	56.9	1.1	10.1	2.3	4.4	14.5	8.9	0.7
White	7.4	7.3	45.7	2.7	15.4	4.6	0.6	8.5	6.1	1.7
Negro	4.3	12.1	33.6	1.7	12.2	0.0	15.4	10.9	8.7	1.2
Quitman										
Total	22.7	5.0	21.6	7.0	14.2	3.1	6.8	6.3	10.9	2.5
Male	36.1	8.2	15.4	9.6	15.7	3.0	0.6	3.4	5.2	2.7
Female	1.7	0.0	31.2	2.8	11.8	3.2	16.6	10.7	19.8	2.2
White	16.1	6.0	27.8	8.0	19.5	3.7	1.3	6.9	7.1	3.6
Negro	33.5	3.6	11.9	5.3	4.8	2.2	15.7	5.3	17.1	0.7

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufacturing	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Rankin										
Total	5.7	9.1	19.0	8.9	21.6	7.8	2.1	16.8	4.7	4.3
Male	8.0	14.2	22.4	10.5	23.0	7.2	0.5	7.5	1.6	5.1
Female	2.2	1.3	13.7	6.4	19.5	8.8	4.5	31.1	9.5	2.9
White	5.1	9.7	18.4	9.7	23.8	9.4	0.3	14.4	4.3	5.0
Negro	8.5	7.1	21.2	6.0	13.2	1.7	8.9	26.1	6.1	1.3
Scott										
Total	15.1	7.4	40.1	3.1	15.8	3.4	2.4	5.5	5.4	1.9
Male	21.5	11.2	35.8	4.7	15.9	3.9	0.0	3.4	1.5	2.1
Female	4.2	1.0	47.2	0.3	15.8	2.6	6.3	8.9	12.1	1.5
White	16.8	8.7	36.9	2.4	17.4	4.2	0.1	6.4	4.9	2.2
Negro	10.2	3.9	49.2	5.1	11.2	1.1	8.8	2.7	6.9	1.1
Sharkey										
Total	31.5	4.4	10.7	4.7	15.2	2.5	6.8	8.0	11.5	4.8
Male	48.2	6.5	8.2	5.7	16.3	2.1	0.9	2.8	5.8	3.5
Female	1.6	0.7	15.1	3.0	13.2	3.1	17.3	17.2	21.8	7.0
White	22.8	7.3	13.1	6.0	22.8	4.1	0.3	9.1	5.2	9.2
Negro	40.9	1.3	8.1	3.3	6.9	0.7	13.8	6.8	18.3	0.0
Simpson										
Total	15.1	8.1	33.3	4.8	13.5	3.5	2.2	13.6	4.4	1.6
Male	20.6	13.1	30.6	6.9	14.4	3.8	0.4	7.5	1.4	1.4
Female	6.5	0.2	37.5	1.5	12.0	3.2	5.0	23.1	8.9	2.0
White	14.9	9.5	30.3	4.8	16.3	4.4	0.4	12.4	5.0	2.1
Negro	15.6	4.0	42.1	4.7	5.3	1.2	7.5	16.9	2.6	0.2
Smith										
Total	21.1	7.6	33.3	7.1	11.2	2.5	2.1	8.4	4.2	2.5
Male	28.8	11.9	27.0	8.2	11.3	3.0	0.0	4.9	1.9	3.0
Female	8.2	0.5	43.7	5.1	11.1	1.8	5.6	14.1	8.2	1.8
White	20.3	8.3	33.9	6.8	12.4	2.8	0.3	8.1	4.5	2.8
Negro	23.8	4.8	30.9	8.5	5.9	1.5	10.6	9.6	3.1	1.3
Stone										
Total	7.3	11.9	27.5	4.7	15.2	2.6	2.8	10.0	13.9	4.1
Male	10.8	18.1	30.0	5.4	14.3	2.7	0.6	5.5	7.3	5.2
Female	1.0	0.5	23.0	3.5	16.7	2.3	6.9	18.2	25.9	2.1
White	7.9	13.8	24.0	2.6	17.3	3.0	0.8	10.8	13.7	4.1
Negro	4.9	3.3	43.5	5.5	4.7	0.8	11.9	6.6	14.8	4.1
Sunflower										
Total	20.8	4.4	15.1	3.3	20.0	3.2	6.7	10.8	12.4	3.4
Male	33.8	7.5	15.2	5.2	21.6	3.1	0.5	4.7	4.9	4.5
Female	2.6	0.1	14.9	2.1	17.7	3.3	15.3	19.2	22.9	1.9
White	15.0	5.0	17.4	3.4	25.8	5.5	0.6	12.9	8.5	5.9
Negro	27.7	3.8	12.5	3.3	12.3	0.3	14.1	8.1	17.3	0.6
Tallahatchie										
Total	27.2	4.0	19.4	4.5	15.4	2.9	8.0	8.2	7.5	3.0
Male	41.1	6.4	16.0	5.5	16.1	3.2	1.7	4.4	2.8	3.0
Female	5.5	0.3	24.9	2.9	14.2	2.3	17.9	14.3	15.0	2.9
White	19.7	5.5	25.8	4.5	20.7	4.1	0.3	10.0	4.9	4.5
Negro	37.8	1.9	10.9	4.5	6.9	1.2	18.8	5.9	11.3	0.9
Tate										
Total	15.2	7.0	27.2	5.6	16.4	3.1	5.9	6.6	10.8	2.3
Male	23.1	10.8	25.9	7.1	17.7	3.0	0.8	4.1	5.0	2.6
Female	1.3	0.2	29.6	2.9	14.0	3.5	14.9	10.9	21.0	1.8
White	10.9	7.8	28.6	6.1	21.1	4.1	1.1	7.3	9.9	3.1
Negro	23.1	5.5	24.7	4.5	7.6	1.4	14.8	5.3	12.3	0.9

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Tippah										
Total	13.0	6.5	36.9	3.1	14.2	3.1	1.8	10.3	8.8	2.5
Male	19.4	11.0	33.2	4.6	15.4	3.9	0.0	5.1	4.0	3.5
Female	3.4	0.0	42.4	0.8	12.4	1.8	4.4	17.9	15.9	1.1
White	12.6	6.4	38.5	2.9	14.6	3.5	0.1	10.3	8.2	2.8
Negro	15.1	7.4	26.4	4.1	11.1	0.0	12.7	10.2	12.3	0.7
Tishomingo										
Total	5.2	7.0	45.3	4.0	15.4	2.4	2.1	9.8	6.9	2.0
Male	7.9	11.5	40.9	6.1	17.4	3.3	0.3	6.2	4.2	2.3
Female	1.1	0.2	51.9	0.7	12.4	1.1	4.8	15.3	11.1	1.6
White	5.4	7.2	45.2	4.1	15.7	2.5	1.1	9.9	7.0	1.9
Negro	0.0	2.6	45.8	0.0	7.4	0.0	27.9	5.8	5.3	5.3
Tunica										
Total	28.7	5.4	13.0	4.0	20.2	1.7	9.4	6.1	9.6	1.9
Male	46.7	8.8	9.6	4.8	17.6	1.8	1.4	3.0	4.3	2.1
Female	2.5	0.5	17.9	2.7	24.0	1.6	21.0	10.7	17.5	1.7
White	19.0	6.7	20.0	3.5	31.1	3.3	0.0	8.1	5.0	3.3
Negro	37.3	4.3	6.8	4.4	10.6	0.3	17.7	4.4	13.7	0.6
Union										
Total	8.2	5.9	40.8	5.4	16.1	3.3	2.6	7.9	6.6	3.2
Male	12.5	8.9	37.8	6.8	18.0	3.2	0.3	4.9	3.5	4.2
Female	0.9	0.9	45.9	3.1	13.1	3.5	6.4	12.8	11.7	1.6
White	7.9	6.4	41.0	5.6	16.9	3.6	0.6	7.8	6.7	3.5
Negro	9.7	2.3	39.7	3.9	11.2	1.3	16.3	8.2	6.0	1.4
Walthall										
Total	14.1	9.0	27.7	6.1	16.6	3.1	2.5	9.9	7.5	3.5
Male	21.3	14.3	21.0	10.0	19.2	3.5	0.0	5.3	2.4	4.1
Female	2.3	0.4	38.7	1.4	12.3	2.5	6.5	17.4	15.9	2.5
White	12.4	9.0	29.8	4.9	19.8	4.4	0.7	8.3	6.2	4.6
Negro	18.4	9.3	22.8	9.2	9.1	0.0	6.6	13.2	10.7	0.8
Warren										
Total	2.9	14.5	20.9	6.1	18.6	4.1	5.6	15.0	7.1	5.3
Male	4.4	20.0	29.6	8.6	16.9	3.5	0.4	7.4	3.0	6.3
Female	0.6	6.0	7.8	2.4	21.2	4.9	13.6	26.6	13.4	3.7
White	1.8	17.5	20.7	7.1	20.2	5.3	0.3	15.5	5.5	6.1
Negro	5.0	8.5	21.4	4.3	15.2	1.5	16.3	13.8	10.4	3.7
Washington										
Total	10.0	7.0	19.2	5.9	20.0	6.1	6.3	11.9	9.9	3.7
Male	15.9	10.7	24.0	8.3	19.4	7.0	0.7	6.0	3.9	4.1
Female	1.3	1.5	12.1	2.4	20.9	4.8	14.5	20.6	18.9	3.1
White	8.0	7.0	18.3	8.0	25.2	8.7	0.4	12.6	6.9	5.0
Negro	12.9	7.1	20.5	3.2	12.1	2.6	14.4	11.1	14.2	2.0
Wayne										
Total	15.3	8.5	31.4	5.1	14.6	4.4	2.4	8.1	7.4	2.8
Male	20.4	13.0	32.3	6.7	13.0	5.1	0.3	3.4	2.9	3.1
Female	5.9	0.2	29.6	2.3	17.6	3.2	6.5	17.0	15.7	2.2
White	18.9	9.8	28.8	4.4	17.1	5.4	0.1	7.3	4.6	3.6
Negro	6.1	5.2	38.1	6.9	7.9	1.8	8.4	10.1	14.8	0.7
Webster										
Total	10.3	5.9	40.9	2.9	14.8	3.2	3.4	8.6	7.8	2.2
Male	15.4	9.2	43.3	4.2	14.1	3.3	0.0	4.6	4.0	2.0
Female	1.0	0.0	36.6	0.5	16.2	2.9	9.7	16.0	14.7	2.5
White	7.8	7.1	43.4	2.5	16.9	3.5	0.7	9.1	6.4	2.6
Negro	22.2	0.5	30.0	4.9	5.1	1.6	16.2	5.3	14.1	0.0

Table 27.-(continued)

Area Sex and Race	Percent Employed(1)									
	Extractive(2)	Construction	Manufactoring	Trans. Comm., Util.	Trade: Whsl.& Retail	Bus.& Finan. Serv.	Pvt. Households	Health &Other Serv.	Educ. Serv.	Public Adm.
	Percent									
Wilkinson										
Total	13.2	7.8	32.2	4.1	13.6	3.0	5.4	10.4	7.8	2.6
Male	17.9	10.9	37.2	5.0	13.6	3.2	0.8	6.2	2.2	3.2
Female	4.8	2.0	23.1	2.5	13.6	2.7	13.9	18.0	18.0	1.5
White	9.4	10.2	28.2	3.4	17.4	5.0	0.6	12.9	8.3	4.6
Negro	16.0	5.8	35.6	4.6	10.5	1.4	9.3	8.4	7.5	1.0
Winston										
Total	8.0	7.3	39.7	6.0	14.6	3.7	4.5	8.3	5.6	2.4
Male	11.3	11.1	42.4	8.6	12.9	4.1	0.0	4.5	2.0	3.1
Female	2.5	1.0	35.4	1.8	17.4	2.9	11.7	14.6	11.4	1.2
White	7.1	8.2	38.0	6.0	18.5	4.9	0.6	8.6	4.9	3.3
Negro	8.1	4.7	45.1	6.1	5.7	0.8	14.0	7.9	7.5	0.2
Yalobusha										
Total	9.2	7.8	34.9	4.0	14.5	3.6	4.9	8.6	9.0	3.6
Male	15.8	13.2	29.1	6.4	16.3	5.2	0.4	5.0	4.3	4.2
Female	0.2	0.4	42.6	0.8	12.0	1.5	10.9	13.6	15.4	2.7
White	6.5	9.9	32.7	4.6	17.7	4.4	1.6	9.1	8.5	5.2
Negro	14.7	3.4	39.4	2.8	7.9	2.1	11.6	7.6	10.1	0.3
Yazoo										
Total	19.8	5.0	20.1	6.0	16.5	4.3	7.9	10.0	6.7	3.3
Male	30.2	7.3	23.0	7.0	16.8	3.9	1.2	4.9	2.1	3.8
Female	1.4	0.8	16.4	4.0	15.8	5.0	19.9	19.2	14.9	2.5
White	15.2	6.3	24.9	5.9	21.8	6.0	0.7	9.7	4.6	4.9
Negro	26.5	3.1	14.3	6.0	8.7	1.8	18.3	10.5	9.7	1.1

Source: U. S. Bureau of the Census, Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Fourth Count, Tab 62; 1970 Census of Population, United States Summary, Report PC(1)-C1, Tables 134, 171, 172; Report PC(1)-D1 (Washington, D. C.: USGPO), Tables 236, 299.

TABLE 28.-NUMBER OF BUSINESS ESTABLISHMENTS, BY INDUSTRY GROUP, 1972 AND 1968, AND PERCENT CHANGE, 1968 TO 1972, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES

Area and Year	Industry Group(1)									
	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	Retail Trade All	Retail Trade Eat& Drk.	Fin. Ins.& R.Est.	Pers.& Prof. Serv.
United States										
1972	3,540,846	54,026	312,399	287,887	129,431	291,569	1,031,013	230,015	329,731	1,000,729
1968	3,503,453	57,335	309,540	298,460	127,265	300,077	1,044,613	228,778	329,166	963,485
%Change	+ 1.1	- 5.8	+ 9.2	- 3.5	+ 1.7	- 2.8	- 1.3	+ 5.4	+ 0.2	+ 3.9
Mississippi										
1972	34,387	603	3,010	2,409	1,579	2,685	11,935	1,659	2,602	8,563
1968	32,651	623	2,683	2,545	1,372	2,653	11,374	1,488	2,558	7,920
%Change	+ 5.3	- 3.2	+12.2	- 5.3	+15.1	+ 1.2	+ 4.9	+11.5	+ 1.7	+ 8.1
Adams										
1972	726	43	50	40	35	67	222	29	60	202
1968	766	56	59	49	32	73	221	24	63	203
%Change	- 5.2	-23.2	-15.3	-18.4	+ 9.4	- 8.2	+ 0.5	+90.8	- 4.8	- 0.5
Alcorn										
1972	531	2	54	43	18	32	197	33	29	146
1968	484	5	40	38	17	37	181	28	31	130
%Change	+ 9.7	-60.0	+35.0	+13.2	+ 5.9	-13.5	+ 8.8	+17.9	- 6.5	+12.3
Amite										
1972	134	6	5	22	8	8	46	NA	6	32
1968	127	6	8	21	10	5	44	NA	4	27
%Change	+ 5.5	--	-37.5	+ 4.8	-20.0	+60.0	+ 4.5	NA	+50.0	+18.5
Attala										
1972	286	2	19	25	21	12	117	11	17	68
1968	279	2	14	37	12	15	109	11	19	69
%Change	+ 2.5	--	+35.7	-32.4	+75.0	-20.0	+ 7.3	--	-10.5	- 1.4
Benton										
1972	56	NA	4	7	3	2	23	NA	1	16
1968	56	1	5	10	2	4	20	NA	NA	13
%Change	--	--	-20.0	-30.0	+50.0	-50.0	+15.0	--	--	+23.1
Bolivar										
1972	573	8	41	23	32	37	250	25	37	130
1968	541	6	45	24	28	36	231	22	36	126
%Change	+ 5.9	+33.3	- 8.9	- 4.2	+14.3	+ 2.8	+ 8.2	+13.6	+ 2.8	+ 3.2
Calhoun										
1972	203	1	13	20	17	12	78	NA	6	53
1968	195	1	8	27	7	10	84	NA	6	52
%Change	+ 4.1	--	+62.5	-25.9	+142.9	+20.0	- 7.1	--	--	+ 1.9
Carroll										
1972	63	1	2	9	1	1	30	NA	3	14
1968	57	1	5	9	1	2	24	NA	2	11
%Change	+10.5	--	-60.0	--	--	-50.0	+25.0	--	+50.0	+27.3
Chickasaw										
1972	271	3	21	35	17	12	111	NA	9	57
1968	258	2	16	30	11	13	107	10	11	63
%Change	+ 5.0	+50.0	+31.3	+16.7	+54.5	- 7.7	+ 3.7	--	-18.2	- 9.5
Choctaw										
1972	93	NA	8	12	6	9	33	NA	3	16
1968	87	NA	7	15	6	7	32	NA	4	16
%Change	+ 6.9	--	+14.3	-20.0	--	+28.6	+ 3.1	--	-25.0	--
Claiborne										
1972	110	1	8	16	4	6	44	NA	7	21
1968	109	NA	7	18	4	8	45	NA	8	18
%Change	+ 0.9	--	+14.3	-11.1	--	-25.0	- 2.2	--	-12.5	+16.7
Clarke										
1972	183	11	11	31	9	15	61	NA	7	37
1968	182	3	7	42	13	14	64	NA	9	29
%Change	+ 0.5	+266.7	+57.1	-26.2	-30.8	+ 7.1	- 4.7	--	-22.2	+27.6
Clay										
1972	287	6	14	21	16	18	107	16	25	76
1968	259	6	10	23	11	18	94	NA	23	71
%Change	+10.8	--	+40.0	- 8.7	+45.5	--	+13.8	--	+ 8.7	+ 7.0

(1) Complete industrial group descriptions are: Agricultural Services, Forestry, Fisheries and Mining; Contract Construction; Manufacturing; Transportation and Other Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance and Real Estate; Services, including medical, legal, personal, and hotel. In nonmanufacturing industries, an employer who operates more than one establishment will be counted as one reporting unit.

Table 28.-(continued)

Area and Year	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	Retail Trade		Fin. Ins.& R.Est.	Pers. & Prof. Serv.
							All	Eat& Drk.		
Oahoma										
1972	583	9	43	28	33	51	216	28	42	153
1968	598	9	50	34	28	59	212	23	50	150
%Change	- 2.5	--	-14.0	-17.6	+17.9	-13.6	+ 1.9	+21.7	-16.0	+ 2.0
Opiah										
1972	305	5	17	28	16	23	128	16	16	69
1968	316	4	18	30	15	20	140	13	22	63
%Change	- 3.5	+25.0	- 5.6	- 6.7	+ 6.7	+15.0	- 8.6	+23.1	-27.3	+ 9.5
Ovington										
1972	168	2	13	8	9	12	73	NA	7	36
1968	142	4	8	11	6	15	57	NA	7	29
%Change	+18.3	-50.0	+62.5	-27.3	+50.0	-20.0	+28.1	--	--	+24.1
e Soto										
1972	349	3	52	26	19	9	131	20	29	70
1968	248	3	35	23	10	8	99	12	14	52
%Change	+40.7	--	+48.6	+13.0	+90.0	+12.5	+32.3	+66.7	+107.1	+34.6
orrest										
1972	1162	15	94	65	41	95	383	73	112	332
1968	1125	21	94	75	40	96	368	58	114	302
%Change	+ 3.3	-28.6	--	-13.3	+ 2.5	- 1.0	+ 4.1	+25.9	- 1.8	+ 9.9
ranklin										
1972	101	8	1	22	7	1	35	NA	6	18
1968	105	6	3	31	4	2	36	NA	8	15
%Change	- 3.8	+33.3	-66.7	-29.0	+75.0	-50.0	- 2.8	--	-25.0	+20.0
eorge										
1972	167	2	6	14	6	10	73	10	11	43
1968	150	3	6	15	5	10	69	NA	7	33
%Change	+11.3	-33.3	--	- 6.7	+20.0	--	+ 5.8	--	+57.1	+30.3
reene										
1972	79	1	2	9	2	4	41	NA	4	16
1968	98	2	4	17	7	4	44	NA	3	16
%Change	-19.4	-50.0	-50.0	-47.1	-71.4	--	- 6.8	--	+33.3	--
renada										
1972	364	4	29	25	16	24	144	18	20	95
1968	341	2	26	30	13	22	135	15	22	84
%Change	+ 6.7	+100.0	+11.5	-16.7	+23.1	+ 9.1	+ 6.7	+20.0	- 9.1	+13.1
ancock										
1972	228	2	32	16	9	9	77	21	17	62
1968	231	3	32	13	8	9	86	16	19	56
%Change	- 1.3	-33.3	--	+23.1	+12.5	--	-10.5	+31.3	-10.5	+10.7
arrison										
1972	2219	17	234	110	88	133	717	164	210	657
1968	2100	14	207	113	73	137	701	164	217	612
%Change	+ 5.7	+21.4	+13.0	- 2.7	+20.5	- 2.9	+ 2.3	--	- 3.2	+ 7.4
inds										
1972	4567	72	493	245	123	482	1076	186	589	1391
1968	4293	68	468	232	104	458	1071	178	561	1288
%Change	+ 6.4	+ 5.9	+ 5.3	+ 5.6	+18.3	+ 5.2	+ 0.5	+ 4.5	+ 5.0	+ 8.0
olmes										
1972	291	2	14	20	18	16	137	17	12	70
1968	279	5	12	20	8	18	133	13	14	66
%Change	+ 4.3	-60.0	+16.7	--	+125.0	-11.1	+ 3.0	+30.8	-14.3	+ 6.1
umphreys										
1972	184	NA	16	10	11	11	83	NA	9	42
1968	161	2	10	7	7	11	78	NA	9	35
%Change	+14.3	--	+60.0	+42.9	+57.1	--	+ 6.4	--	--	+20.0
ssaquena										
1972	6	NA	1	NA	1	1	2	NA	NA	1
1968	10	NA	2	1	2	1	3	NA	NA	NA
%Change	-40.0	--	-50.0	--	-50.0	--	-33.3	--	--	--

Table 28.-(continued)

Area and Year	Industry Group									
							Retail Trade			
	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	All	Eat& Drk.	Fin. Ins.& R.Est.	Pers.& Prof. Serv.
Itawamba										
1972	168	1	21	25	5	9	61	NA	7	1
1968	156	2	22	19	7	9	54	NA	6	35
%Change	+ 7.7	-50.0	- 4.5	+31.6	-28.6	--	+13.0	--	+16.7	-2.9
Jackson										
1972	1,168	19	141	57	55	82	380	80	93	320
1968	936	11	92	53	49	60	328	62	73	246
%Change	+24.8	+72.7	+53.3	+ 7.5	+12.2	+36.7	+15.9	+29.0	+27.4	+30.1
Jasper										
1972	160	15	12	17	13	11	53	NA	4	32
1968	169	13	8	31	11	12	61	NA	5	26
%Change	- 5.3	+15.4	+50.0	-45.2	+18.2	- 8.3	-13.1	--	-20.0	+23.1
Jefferson										
1972	99	3	5	9	8	4	38	NA	10	20
1968	98	4	7	15	9	5	36	NA	8	10
%Change	+ 1.0	-25.0	-28.6	-40.0	-11.1	-20.0	± 5.6	--	+25.0	+100.0
Jefferson Davis										
1972	132	4	6	7	6	9	60	NA	8	29
1968	129	4	5	8	7	7	58	NA	7	29
%Change	+ 2.3	--	+20.0	-12.5	-14.3	+28.6	+ 3.4	--	+14.3	--
Jones										
1972	928	49	81	63	40	83	310	46	70	218
1968	881	43	67	63	38	74	297	40	68	218
%Change	+ 5.3	+14.0	+20.9	--	+ 5.3	+12.2	+ 4.4	+15.0	+ 2.9	--
Kemper										
1972	65	NA	2	14	4	1	29	NA	4	9
1968	67	1	2	17	2	3	29	NA	3	10
%Change	- 3.0	--	--	-17.6	+100.0	-66.7	--	--	+33.3	-10.0
Lafayette										
1972	359	4	36	11	21	15	123	15	29	107
1968	316	3	35	12	15	9	118	14	17	103
%Change	+13.6	+13.3	+ 2.9	- 8.3	+40.0	+66.7	+ 4.2	+ 7.1	+70.6	+ 3.9
Lamar										
1972	159	10	15	26	8	4	52	NA	5	33
1968	153	10	11	26	6	6	56	NA	6	31
%Change	+ 3.9	--	+36.4	--	+33.3	-33.3	- 7.1	--	-16.7	+ 6.5
Lauderdale										
1972	1361	9	124	95	63	124	413	81	113	400
1968	1353	6	118	98	59	132	418	80	135	368
%Change	0.6	+50.0	+ 5.1	- 3.1	+ 6.8	- 6.1	- 1.2	+ 1.3	-16.3	+ 8.7
Lawrence										
1972	122	NA	8	9	11	9	54	NA	8	23
1968	114	1	12	11	5	7	54	NA	7	17
%Change	+ 7.0	--	-33.3	-18.2	+120.0	+28.6	--	--	+14.3	+35.3
Leake										
1972	216	3	15	23	11	7	93	10	12	48
1968	190	4	14	23	12	6	72	NA	10	42
%Change	+13.7	-25.0	+ 7.1	--	- 8.3	+16.7	+29.2	--	+20.0	+14.3
Lee										
1972	1049	5	80	78	32	117	354	47	81	283
1968	918	7	71	72	27	103	303	38	81	237
%Change	+14.3	-28.6	+12.7	+ 8.3	+18.5	+13.6	+16.8	+23.7	--	+19.4
Leflore										
1972	679	5	60	28	30	64	257	35	57	165
1968	666	6	60	32	29	70	263	35	53	147
%Change	+ 2.0	-16.7	--	-12.5	+ 3.4	- 8.6	- 2.3	--	+ 7.5	+12.2
Lincoln										
1972	427	13	41	41	21	28	156	18	27	97
1968	400	13	39	36	19	26	142	14	29	95
%Change	+ 6.8	--	+ 5.1	+13.9	+10.5	+ 7.7	+ 9.9	+28.6	- 6.9	+ 2.1
Lowndes										
1972	855	6	85	44	36	70	323	62	69	207
1968	794	6	61	49	43	63	290	51	66	205
%Change	+ 7.7	--	+39.3	--	-16.3	+11.1	+11.4	+21.6	+ 4.5	+ 1.0

Table 28.-(continued)

Area and Year	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	Retail Trade		Fin. Ins.& R.Est.	Pers.& Prof. Serv.
							All	Eat& Drk.		
Madison										
1972	361	4	23	31	16	19	163	19	19	79
1968	349	5	22	36	14	18	154	17	20	75
%Change	+ 3.4	-20.0	+ 4.5	-13.9	+14.3	+ 5.6	+ 5.8	+11.8	- 5.0	+ 5.3
Marion										
1972	376	10	39	32	19	27	130	16	20	79
1968	336	13	25	33	14	22	112	16	24	80
%Change	+11.9	-23.1	+50.0	- 3.0	+35.7	+22.7	+16.1	--	-16.7	- 1.2
Marshall										
1972	242	2	16	22	7	12	108	15	13	53
1968	227	3	15	20	5	11	102	17	13	55
%Change	+ 6.6	-33.3	+ 6.7	+10.0	+40.0	+ 9.1	+ 5.9	-11.8	--	- 3.6
Monroe										
1972	496	19	39	47	18	30	194	18	30	117
1968	464	19	33	47	22	31	172	13	28	106
%Change	+ 6.9	--	+18.2	--	-18.2	- 3.2	+12.8	+38.5	+ 7.1	+10.4
Montgomery										
1972	186	3	8	19	8	9	84	10	8	43
1968	196	3	14	21	11	9	84	11	11	43
%Change	- 5.1	--	-42.9	- 9.5	-27.3	--	--	- 9.1	-27.3	--
Neshoba										
1972	287	1	28	24	14	17	105	10	13	79
1968	246	2	17	29	13	13	89	NA	13	69
%Change	+16.7	-50.0	+64.7	-17.2	+ 7.7	+30.8	+18.0	--	--	+14.5
Newton										
1972	260	2	11	21	11	10	124	10	8	64
1968	243	5	10	22	9	15	114	10	8	60
%Change	+ 7.0	-60.0	+10.0	- 4.5	+22.2	-33.3	+ 8.8	--	--	+ 6.7
Noxubee										
1972	158	5	13	13	8	7	74	NA	6	29
1968	162	5	9	15	5	11	74	NA	8	32
%Change	- 2.5	--	+44.4	-13.3	+60.0	-36.4	--	--	-25.0	- 9.4
Oktibbeha										
1972	383	10	35	33	10	8	139	17	28	108
1968	334	9	25	28	13	9	123	14	26	92
%Change	+14.7	+11.1	+40.0	+17.9	-23.1	-11.1	+13.0	+21.4	+ 7.7	+17.4
Panola										
1972	383	6	40	21	30	20	152	14	26	76
1968	336	5	35	22	18	25	138	NA	19	69
%Change	+14.0	+20.0	+14.3	- 4.5	+66.7	-20.0	+10.1	--	+36.8	+10.1
Pearl River										
1972	363	2	33	31	12	29	135	20	24	89
1968	359	5	28	31	13	28	145	22	23	79
%Change	+ 1.1	-60.0	+17.9	--	- 7.7	+ 3.6	- 6.9	- 9.1	+ 4.3	+12.7
Perry										
1972	75	1	5	13	2	7	29	NA	5	12
1968	79	1	5	15	4	7	26	NA	4	15
%Change	- 5.1	--	--	-13.3	-50.0	--	+11.5	--	+25.0	-20.0
Pike										
1972	567	11	41	39	23	40	234	31	31	135
1968	575	14	41	46	22	43	213	26	41	148
%Change	- 1.4	-21.4	--	-15.2	+ 4.5	- 7.0	+ 9.9	+19.2	-24.4	- 8.8
Pontotoc										
1972	172	1	12	22	8	12	67	NA	6	34
1968	163	4	12	17	7	13	57	NA	7	39
%Change	+ 5.5	-75.0	--	+29.4	+14.3	- 7.7	+17.5	--	-14.3	-12.8
Prentiss										
1972	302	3	23	29	13	20	124	12	10	74
1968	252	2	13	26	9	23	100	NA	11	63
%Change	+19.8	+50.0	+76.9	+11.5	+44.4	-13.0	+24.0	--	- 9.1	+17.5
Quitman										
1972	164	NA	8	8	5	8	84	NA	11	37
1968	153	1	8	9	6	12	75	NA	11	30
%Change	+ 7.2	--	--	-11.1	-16.7	-33.3	+12.0	--	--	+23.3

Table 28.-(continued)

Area and Year	Industry Group									
							Retail Trade			
	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	All	Eat& Drk.	Fin. Ins.& R.Est.	Pers.& Prof. Serv.
Rankin										
1972	462	10	75	31	36	35	131	15	28	106
1968	391	5	55	39	27	29	122	13	23	83
%Change	+ 18.2	+100.0	+36.4	-20.5	+33.3	+20.7	+ 7.4	+15.4	+21.7	+27.7
Scott										
1972	314	3	26	32	15	15	138	11	14	59
1968	277	4	21	28	11	20	121	13	18	52
%Change	+13.4	-25.0	+23.8	+14.3	+36.4	-25.0	+14.0	-15.4	-22.3	+13.5
Sharkey										
1972	98	NA	7	8	7	5	43	NA	5	21
1968	105	NA	8	7	6	6	52	NA	6	19
%Change	- 6.7	--	-12.5	+14.3	+16.7	-16.7	-17.3	--	-16.7	+10.5
Simpson										
1972	278	12	28	21	12	17	116	NA	12	49
1968	255	8	24	23	13	19	106	12	10	49
%Change	+ 9.0	+50.0	+16.7	- 8.7	- 7.7	-10.5	+ 9.4	--	+20.0	--
Smith										
1972	130	4	8	22	6	5	57	NA	6	19
1968	118	9	5	15	7	3	54	NA	6	16
%Change	+10.2	-55.6	+60.0	+46.7	-14.3	+66.7	+ 5.6	--	--	+18.8
Stone										
1972	132	6	6	30	5	5	51	NA	6	19
1968	128	6	7	25	3	10	49	NA	8	17
%Change	+ 3.1	--	-14.3	-20.0	+66.7	-50.0	+ 4.1		-25.0	+11.8
Sunflower										
1972	399	5	33	22	19	29	189	15	25	71
1968	398	6	29	23	15	29	183	12	26	85
%Change	+ 0.3	-16.7	+13.8	- 4.3	+26.7	--	+ 3.3	+25.0	- 3.8	-16.5
Tallahatchie										
1972	171	NA	9	10	9	14	76	NA	10	42
1968	170	1	7	8	9	17	75	NA	8	44
%Change	- 0.6	--	+28.6	+25.0	--	-17.6	+ 1.3	--	+25.0	- 4.5
Tate										
1972	214	3	23	12	12	13	87	11	13	47
1968	203	3	17	11	12	10	92	13	13	42
%Change	+ 5.4	--	+35.3	+ 9.1	--	+30.0	- 5.4	-15.4	--	+11.9
Tippah										
1972	228	5	11	21	10	18	99	NA	11	44
1968	217	8	9	24	9	13	96	11	12	38
%Change	+ 5.1	-37.5	+22.2	-12.5	+11.1	+38.5	+ 3.1	--	- 8.3	+15.8
Tishomingo										
1972	236	4	18	30	8	13	103	18	9	45
1968	200	3	14	29	4	12	91	11	7	38
%Change	+18.0	+33.3	+28.6	+ 3.4	+100.0	+ 8.3	+13.2	+63.6	+28.6	+18.4
Tunica										
1972	119	4	4	6	6	6	54	NA	7	27
1968	123	2	4	5	5	8	60	NA	8	28
%Change	- 3.3	+100.0	--	+20.0	+20.0	-25.0	-10.0	--	-12.5	- 3.6
Union										
1972	236	3	12	19	10	19	99	13	13	58
1968	251	3	10	29	9	20	101	15	16	61
%Change	- 6.0	--	+20.0	-34.5	+11.1	- 5.0	- 2.0	-13.3	-18.7	- 4.9
Walthall										
1972	150	7	8	9	15	10	66	10	4	28
1968	145	9	3	11	12	10	64	NA	4	31
%Change	+ 3.4	-22.2	+166.7	-18.2	+25.0	--	+ 3.1	--	--	- 9.7
Warren										
1972	709	8	61	48	37	43	253	41	50	195
1968	691	6	67	46	33	49	245	31	53	181
%Change	+ 2.6	+33.3	- 9.0	+ 4.3	+12.1	-12.2	+ 3.3	+32.3	- 5.7	+ 7.7
Washington										
1972	1223	13	119	66	107	89	423	49	98	295
1968	1210	12	112	74	103	93	413	56	100	295
%Change	+ 1.1	+ 8.3	+ 6.3	-10.8	+ 3.9	- 4.3	+ 2.4	-12.5	- 2.0	--

Table 28.-(continued)

Area and Year	Industry Group									
	Total	Agr. and Ertr.	Con-struc-tion	Manu-factur-ing	Trans. & Pub. Util.	Whole-Sale Trade	Retail Trade		Fin. Ins.& R.Est.	Pers.& Prof. Serv.
							All	Eat& Drk.		
Wayne										
1972	202	14	14	24	6	11	85	10	9	36
1968	207	19	10	32	8	13	82	10	7	34
%Change	- 2.4	-26.3	+40.0	-25.0	-25.0	-15.4	+ 3.7	--	+28.6	+ 5.9
Webster										
1972	145	1	10	12	7	9	68	NA	6	30
1968	136	2	12	15	5	10	54	NA	7	30
%Change	+ 6.6	-50.0	-16.7	-20.0	+40.0	-10.0	+25.9	--	-14.3	--
Wilkinson										
1972	132	5	3	21	8	10	53	NA	3	27
1968	145	6	5	35	6	6	58	NA	6	19
%Change	- 9.0	-16.7	-40.0	-40.0	+33.3	+66.7	- 8.6	--	-50.0	+42.1
Winston										
1972	287	2	30	22	21	14	115	12	12	63
1968	274	4	20	28	16	13	110	10	13	62
%Change	+ 4.7	-50.0	+50.0	-21.4	+31.3	+ 7.7	+ 4.5	+20.0	- 7.7	+ 1.6
Yalobusha										
1972	169	3	19	11	12	3	73	NA	8	39
1968	169	3	15	10	7	5	77	NA	7	41
%Change	--	--	+26.7	+10.0	+71.4	-40.0	- 5.2	--	+14.3	- 4.9
Yazoo										
1972	353	14	18	19	25	24	139	19	21	89
1968	377	17	24	19	18	25	151	16	27	88
%Change	- 6.4	-17.6	-25.0	--	+38.9	- 4.0	- 7.9	+18.8	-22.2	+ 1.1

Source: U.S. Bureau of Census, County Business Patterns, 1968, Report No. CBP-68-1, Table 1B; Report No. CBP-68-1, Table 2; 1972 Report No. CBP-72-1, Table 1B; Report No. CBP-72-26 (Washington, D.C.: USGPO), Table 2.

TABLE 29.-NUMBER OF PERSONS EMPLOYED BY BUSINESS ESTABLISHMENTS, BY INDUSTRY GROUP, 1972 AND 1968, AND CHANGES FROM 1968 TO 1972, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES.

Area and Year	Total	Agric. etc.	Con-struct.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Servi
United States									
1972	58,015,904	801,472	3,398,188	18,696,367	3,895,408	4,074,795	11,647,893	3,924,084	11,102
1968	54,446,130	785,583	3,115,958	19,719,112	3,605,304	3,813,670	10,250,035	3,353,143	9,517
%Change	+ 6.6	- 2.0	+ 9.1	- 5.2	+ 8.1	+ 6.9	+13.6	+17.0	+
Mississippi									
1972	484,296	7,786	32,714	197,805	28,116	28,764	90,142	24,747	69
1968	404,386	7,111	28,765	165,811	21,773	25,320	75,599	19,893	56
%Change	+19.8	+ 9.5	+ 3.7	+19.3	+29.1	+13.6	+19.2	+24.4	+
Adams									
1972	10,930	914(2)	(2)	4,324	579	684	1,960	390	1
1968	10,622	944	422	4,457	458	690	2,069	463	1
%Change	+ 2.9	- 3.2	--	- 3.0	+26.4	- 0.9	- 5.3	-15.8	+
Alcorn									
1972	8,763	(2)	263	5,393	324	277	1,377	235	
1968	6,598	6(4)	180	4,099	257	344	952	190	
%Change	+32.8	--	+46.1	+31.6	+26.1	-19.5	+44.6	+23.7	+
Amite									
1972	1,327	45(3)	86	663	29	21	151	34	
1968	1,193	187(3)	122	481	42	20	156	(2)	
%Change	+11.2	-75.9	-29.5	+37.8	-31.0	+ 5.0	- 3.2	--	+
Attala									
1972	4,300	(2)	201	2,515	127	119	766	109	
1968	2,902	(2)	157	1,577	85	80	639	104	
%Change	+48.2	--	+28.0	+59.5	+49.4	+48.8	+19.9	+ 4.8	+
Benton									
1972	611	(2)	(2)	(2)	11	(2)	96	(2)	
1968	597	(2)	12	(2)	(2)	26	85	NR	
%Change	+ 2.3	--	--	--	--	--	+12.9	--	-
Bolivar									
1972	7,143	35(4)	195	2,636	422	412	1,624	220	1
1968	5,721	26(4)	243	2,290	341	303	1,413	258	
%Change	+24.9	+34.6	-19.8	+15.1	+23.8	+36.0	+14.9	-14.7	+
Calhoun									
1972	1,944	(2)	60	1,146	86	41	340	30	
1968	2,138	(2)	(2)	1,472	53	39	359	30	
%Change	- 9.1	--	--	-22.1	+62.3	+ 5.1	- 5.3	--	+
Carroll									
1972	647	(2)	(2)	198	(2)	(2)	90	(2)	
1968	475	(2)	9	82	(2)	(2)	58	(2)	
%Change	+36.2	--	--	+141.5	--	--	+55.2	--	+
Chickasaw									
1972	4,923	(2)	120	3,589	165	89	472	55	
1968	4,041	(2)	68	2,877	173	61	429	47	
%Change	+21.8	--	+76.5	+24.7	- 4.6	+45.9	+10.0	+17.0	
Choctaw									
1972	1,110	NR	30	769	25	40	99	13	
1968	877	NR	24	623	18	17	81	25	
%Change	+26.6	--	+25.0	+23.4	+38.9	+135.3	+22.2	-48.0	
Claiborne									
1972	1,007	(2)	37	491	11	27	175	36	
1968	887	NR	16	446	(2)	39	192	39	
%Change	+13.5	--	+131.3	+10.1	--	-30.8	- 8.9	- 7.7	

(1)Complete industrial group descriptions are: Agricultural Services, Forestry, Fisheries, Mining; Contract Construction; Manufacturing; Transportation and Other Public Utilities; Wholesale Trade; Retail Trade; Finance, Insurance and Real Estate; Services, including me legal, personal, and hotel.
(2)Data suppressed to avoid disclosure.
(3)Mining only. Agricultural Services, Forestry, and Fisheries suppressed.
(4)Agricultural Services, Forestry, and Fisheries only.
NR - None Reported.

ble 29.-(continued)

ea d ar	Total	Agric. etc.	Con- struct.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Services
arke									
972	2,794	166(3)	189	1,645	69	92	398	(2)	179
968	2,193	(2)	98	1,514	71	67	232	52	146
Change	+27.4	--	+92.9	+ 8.7	- 2.8	+37.3	+71.6	--	+22.6
ay									
972	4,947	12(4)	287	2,926	196	169	533	147	618
968	3,997	(2)	167	2,626	167	113	480	87	294
Change	+23.8	--	+71.9	+11.4	+17.4	+49.6	+11.0	+69.0	+110.2
ahoma									
972	5,942	65(4)	424	1,478	430	363	1,486	488	1,154
968	5,905	50(4)	679	1,589	387	365	1,296	425	1.063
Change	+ 0.6	+30.0	-37.6	- 7.0	+11.1	- 0.5	+14.7	+14.8	+ 8.6
piah									
972	3,879	67(3)	68	2,369	82	157	659	109	333
968	3,820	4(4)	141	2,414	78	122	649	103	266
Change	+ 1.5	--	-51.8	- 1.9	+ 5.1	+28.7	+ 1.5	+ 5.8	+25.2
vington									
972	2,184	(2)	389	(2)	108	85	397	50	137
968	1,499	(2)	105	703	142	95	281	34	74
Change	+45.7	--	+270.5	--	-23.9	-10.5	+41.3	+47.1	+85.1
Soto									
972	3,714	11(4)	414	1,567	172	83	776	252	387
968	2,275	16(4)	244	998	110	63	418	74	332
Change	+63.3	-31.2	+69.7	+57.0	+56.4	+31.7	+85.6	+240.5	+16.6
rrest									
972	16,175	275	1,325	4.176	1,247	1,047	3,846	1.025	3,151
968	14,060	303	1,039	3,566	1,066	1,088	3,341	833	2,729
Change	+15.0	- 9.2	+21.5	+17.1	+17.0	- 3.8	+15.1	+23.0	+15.5
anklin									
972	930	72(3)	(2)	418	45	(2)	164	59	142
968	643	70(3)	(2)	220	22	(2)	160	68	92
Change	+44.6	+ 2.9	--	+90.0	+104.5	--	+ 2.5	-13.2	+54.3
orge									
972	1,552	(2)	44	517	(2)	78	403	63	179
968	1,161	(2)	22	443	(2)	45	373	33	90
Change	+33.7	--	+100.0	+16.7	--	+73.3	+ 8.0	+90.9	+98.9
eene									
972	657	(2)	(2)	(2)	(2)	8	99	32	35
968	636	(2)	(2)	370	19	6	109	(2)	27
Change	+ 3.3	--	--	--	--	+33.3	- 9.2	--	+29.6
enada									
972	6,542	3(4)	249	3,673	417	184	869	221	859
968	5,624	(2)	377	3,191	292	185	718	114	504
Change	+20.6	--	-34.0	+15.1	+42.8	- 0.5	+21.0	+93.9	+70.4
ncock									
972	2,916	(2)	124	719	166	55	480	(2)	541
968	3,630	(2)	352	2,078	127	65	450	117	412
Change	-19.7	--	-64.8	-65.4	+30.7	-15.4	+ 6.7	--	+31.3
rison									
972	25,476	57(4)	2,708	3,437	2,771	1,515	7,719	1,697	5,921
968	21,336	200	1,954	3,118	1,901	1,321	6,321	1,512	4,873
Change	+19.4	--	+38.6	+10.2	+45.8	+14.7	+13.6	+12.2	+21.5
ds									
972	74,342	889	7,761	13,495	5,899	6,927	13,929	8,042	17,053
968	63,608	700	6,436	12,250	4,559	6,329	11,643	6,885	14,612
Change	+16.9	+27.0	+20.6	+10.2	+29.4	+ 9.4	+19.6	+16.8	+16.7
mes									
972	2,391	(2)	51	859	101	76	569	85	602
968	1,860	(2)	52	720	49	79	526	82	315
Change	+28.5	--	- 1.9	+19.3	+106.1	- 3.8	+ 8.2	+ 3.7	+91.1
phreys									
972	1,445	NR	161	441	88	77	363	(2)	251
968	1,130	(2)	123	(2)	57	73	368	54	134
Change	+17.9	--	+30.9	--	+54.4	+ 5.5	- 1.4	--	+87.3

Table 29.-(continued)

Area and Year	Total	Agric. etc.	Con-struc.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Servi
Issaquena									
1972	53	NR	(2)	NR	(2)	(2)	(2)	NR	
1968	41	NR	(2)	(2)	(2)	(2)	16	NR	
%Change	+29.3	--	--	--	--	--	--	--	
Itawamba									
1972	3,361	(2)	407	2,393	36	46	279	21	
1968	2,954	(2)	372	2,103	31	33	218	14	
%Change	+13,8	--	+ 9.4	+13.8	+16.1	+39.4	+28.0	+50.0	-
Jackson									
1972	38,611	77(4)	1,770	28,764	805	826	3,637	702	1
1968	23,158	109(4)	1,325	15,526	820	721	2,387	442	1
%Change	+66.7	-29.4	+33.6	+85.3	- 1.8	+14.6	+52.4	+58.8	+
Jasper									
1972	1,748	118(3)	91	771	116	163	279	(2)	
1968	1,503	97(3)	43	737	85	122	288	(2)	
%Change	+16.3	+21.6	+111.6	+ 4.6	+36.5	+33.6	- 3.1	--	+
Jefferson									
1972	917	(2)	35	242	116	36	174	135	
1968	712	61(4)	144	126	121	21	111	89	
%Change	+28.8	--	-75.7	+92.1	- 4.1	+71.4	+56.7	+51.7	+6
Jefferson Davis									
1972	958	(2)	22	243	79	38	246	31	
1968	1,032	(2)	21	292	127	20	239	23	
%Change	- 7.2	--	+ 4.8	-16.8	-37.8	+90.0	+ 2.9	+34.8	-
Jones									
1972	12,273	664	959	4.365	815	909	2,641	451	1
1968	10,555	515	569	4,167	667	667	2,266	384	1
%Change	+16.3	+28.9	+68.5	+ 4.8	+22.2	+36.3	+16.5	+17.4	+
Kemper									
1972	523	NR	(2)	262	13	(2)	120	35	
1968	380	(2)	(2)	174	(2)	(2)	125	11	
%Change	+37.6	--	--	+50.6	--	--	- 4.0	+218.2	+1
Lafayette									
1972	3,442	8(4)	386	914	272	96	880	213	
1968	2,583	6(4)	216	636	240	72	742	125	
%Change	+33.3	+33.3	+78.7	+43.7	+13.3	+33.3	+18.6	+70.4	+
Lamar									
1972	1,939	32(3)	174	1,255	49	15	226	55	
1968	1,621	39(3)	195	978	20	(2)	233	48	
%Change	+19.6	-17.9	-10.8	+28.3	+145.0	--	- 3.0	+14.6	+
Lauderdale									
1972	18,378	16(4)	1,352	4,382	1,688	1,726	4,274	1,075	3
1968	15,764	11(4)	1,152	3,987	1.031	1,694	3,633	1.102	3
%Change	+16.6	45.5	+17.4	+ 9.9	+63.7	+ 1.9	+17.6	- 2.5	+
Lawrence									
1972	1,833	NR	91	1,007	44	287	262	50	
1968	3,037	(2)	1,705	819	7	(2)	254	41	
%Change	-39.6	--	-94.7	-23.0	+528.6	--	+ 3.1	+22.0	+
Leake									
1972	2,222	(2)	76	1,153	164	27	416	88	
1968	1,587	28(4)	80	839	114	24	303	47	
%Change	+40.0	--	- 5.0	+37.4	+43.9	+12.5	+37.3	+87.2	-
Lee									
1972	20,865	32(4)	846	10,397	863	1,647	3,168	931	2
1968	16,822	42(4)	687	8,659	598	1,208	2,322	759	2
%Change	+24.0	-23.8	+23.1	+20.1	+44.3	+36.3	+36.4	+22.7	-
Leflore									
1972	8,019	15(4)	581	2,498	650	681	2,114	400	
1968	7,266	26(4)	421	2,659	494	750	1,869	419	
%Change	+10.4	-42.3	+38.0	- 6.1	+31.6	- 9.2	+13.1	- 4.5	-
Lincoln									
1972	4,964	162(3)	334	1,849	238	183	1,122	245	
1968	4,742	234(3)	364	1,751	191	181	1,028	187	
%Change	+ 4.7	- 30.8	- 8.2	+ 5.6	+24.6	+ 1.1	+ 9.1	+31.0	

Table 29.-(continued)

Area and Year	Total	Agric. etc.	Con-struc.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Services
Lowndes									
1972	12,880	17(4)	1,369	5,603	642	760	2,544	449	1,419
1968	11,487	21(4)	1,027	5,536	573	584	2,057	409	1,221
Change	+12.1	-19.0	+33.3	+1.2	+12.0	+30.1	+23.7	+ 9.8	+16.2
Madison									
1972	4,893	(2)	431	2,595	121	217	834	155	484
1968	4,968	(2)	244	3,200	87	152	760	127	278
Change	- 1.5	--	+76.6	-18.9	+39.1	+42.8	+ 9.7	+22.0	+74.1
Marion									
1972	5,311	141(3)	603	1,677	211	420	1,276	120	740
1968	4,168	210	468	1,557	216	187	879	111	487
Change	+27.4	--	+28.8	+7.7	- 2.3	+124.6	+45.2	+8.1	+52.0
Marshall									
1972	3,679	(2)	70	2,156	37	57	593	90	635
1968	2,428	(2)	73	1,285	42	39	525	75	350
Change	+51.5	--	- 4.1	+67.8	-11.9	+46.2	+13.0	+20.0	+81.4
Monroe									
1972	8,637	126(3)	564	5,357	211	576	979	376	422
1968	8,623	161	316	5,980	198	469	852	263	354
Change	+ 0.2	--	+78.5	-10.4	+ 6.6	+22.8	+14.9	+43.0	+19.2
Montgomery									
1972	2,509	(2)	59	1,290	133	110	417	(2)	309
1968	2,267	69(4)	77	1,271	132	88	361	53	216
Change	+10.7	--	-23.4	+ 1.5	+ 0.8	+25.0	+15.5	--	+43.1
Neshoba									
1972	3,692	(2)	257	1,949	139	150	552	68	504
1968	2,972	(2)	260	1,660	129	70	441	58	351
Change	+24.2	--	- 1.2	+17.4	+ 7.8	+114.2	+25.2	+17.2	+43.6
Newton									
1972	3,622	(2)	36	2,390	60	67	528	143	359
1968	3,370	32(4)	39	2,347	35	104	510	76	227
Change	+ 7.5	--	- 7.7	+ 1.8	+71.4	-35.6	+ 3.5	+88.2	+58.1
Noxubee									
1972	1,259	33(4)	80	559	35	64	319	74	88
1968	1,141	(4)	45	486	24	88	311	54	90
Change	+10.3	--	+77.8	+15.0	+45.8	-27.3	+ 2.6	+37.0	- 2.2
Oktibbeha									
1972	4,000	44(4)	291	1,465	96	28	1,011	249	765
1968	3,104	94(4)	341	938	121	41	818	192	500
Change	+28.9	-53.2	-14.7	+56.2	-20.7	-31.7	+23.6	+29.7	+53.0
Panola									
1972	3,740	8(4)	235	1,524	277	224	827	121	457
1968	3,563	8(4)	132	1,698	239	190	697	92	454
Change	+ 5.0	--	+78.0	-10.2	+15.9	+17.9	+18.7	+31.5	+ 0.7
Pearl River									
1972	4,060	(2)	150	1,681	78	282	949	175	622
1968	3,780	(2)	280	1,569	64	236	876	168	530
Change	+ 7.4	--	-46.4	+ 7.1	+21.9	+19.5	+ 8.3	+ 4.2	+17.4
Perry									
1972	946	(2)	13	578	(2)	(2)	132	(2)	30
1968	1,067	(2)	(2)	410	10	185	148	(2)	38
Change	-11.3	--	--	+41.0	--	--	-10.8	--	-21.1
Pike									
1972	7,517	122	431	3,036	362	457	1,733	247	991
1968	6,788	155	330	2,912	324	352	1,377	216	1,077
Change	+10.7	-21.3	+30.6	+ 4.3	+11.7	+29.8	+25.9	+14.4	- 8.0
Pontotoc									
1972	3,267	(2)	30	2,529	81	112	331	55	98
1968	1,975	12(4)	43	1,258	67	102	329	38	110
Change	+65.4	--	-30.2	+101.0	+20.9	+ 9.8	+ 0.6	+44.7	-10.9
Prentiss									
1972	4,164	7(4)	128	2,457	142	214	771	41	383
1968	3,226	(2)	74	2,060	83	195	405	35	352
Change	+29.1	--	+73.0	+19.3	+71.1	+ 9.7	+90.4	+17.1	+ 8.8

Table 29.-(continued)

Area and Year	Total	Agric. etc.	Con-struc.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Servic
Quitman									
1972	1,758	NR	41	974	74	68	329	98	16
1968	1,306	(2)	(2)	614	68	90	275	47	16
%Change	+34.6	--	--	+58.6	+ 8.8	-24.4	+19.6	+108.5	- 1.
Rankin									
1972	5,682	113	560	2,047	514	565	1,021	181	62
1968	4,263	(2)	369	1,929	215	430	727	115	38
%Change	+33.3	--	+51.8	+ 6.1	+139.1	+31.4	+40.4	+57.4	+60.
Scott									
1972	4,651	(2)	133	3,067	130	130	768	85	26
1968	4,044	(2)	109	2,611	84	84	665	93	25
%Change	+15.0	--	+22.0	+17.5	+54.8	+54.8	+15.5	- 8.6	+ 4.
Sharkey									
1972	693	NR	30	266	60	16	204	(2)	4
1968	733	NR	25	302	65	(2)	241	33	5
%Change	- 5.5	--	+20.0	-11.9	+ 7.1	--	-15.4	--	- 9.
Simpson									
1972	3,957	68(3)	169	(2)	67	86	748	117	25
1968	2,427	45(4)	100	1,236	64	97	595	71	18
%Change	+63.0	--	+69.0	--	+ 4.7	-11.3	+25.7	+149.3	+38.
Smith									
1972	1,799	(2)	23	1,185	(2)	16	209	(2)	6
1968	1,583	60(4)	15	798	(2)	8	167	45	6
%Change	+13.6	--	+53.3	+48.5	--	+100.0	+25.1	--	- 1.
Stone									
1972	1,446	(2)	78	782	19	20	280	35	13
1968	1,269	18(3)	250	628	10	30	224	30	8
%Change	+13.9	--	-212.0	+24.5	+90.0	-33.0	+25.0	+16.7	+122.
Sunflower									
1972	4,722	18(4)	203	1,660	269	631	1,035	224	66
1968	3,854	(2)	141	1,686	165	443	967	145	26
%Change	+22.5	--	+44.0	- 1.5	+63.0	+42.4	+ 7.0	+54.5	+148.
Tallahatchie									
1972	1,254	NR	64	402	106	72	367	(2)	17
1968	839	(2)	42	147	71	76	263	(2)	19
%Change	+49.5	--	+52.4	+173.5	+49.3	- 5.3	+39.5	--	- 9
Tate									
1972	3,080	(2)	138	1,633	129	64	548	126	42
1968	2,411	(2)	54	1,185	120	43	475	61	46
%Change	+27.7	--	+155.6	+37.8	+ 8.0	+48.8	+15.4	+106.6	- 9
Tippah									
1972	3,278	9(4)	46	2,138	64	117	458	69	2
1968	2,704	25(4)	27	1,754	45	74	357	48	2
%Change	+21.2	-64.0	+70.4	+21.9	+42.2	+58.1	+28.3	+43.8	- 1
Tishomingo									
1972	2,950	17(4)	80	1,916	62	101	495	72	1
1968	2,838	(2)	43	2,019	(2)	58	377	57	2
%Change	+ 3.9	--	+86.0	- 5.1	--	+74.1	+31.3	+26.3	-17
Tunica									
1972	1,047	5(4)	(2)	(2)	40	40	272	53	2
1968	938	13	13	(2)	(2)	40	286	48	2
%Change	+11.6	--	--	--	--	--	- 4.9	+10.4	+ 2
Union									
1972	4,388	41	41	2,653	459	158	625	97	3
1968	3,463	24	24	2,152	275	146	527	70	2
%Change	+26.7	+70.8	+70.8	+23.3	+66.9	+ 8.2	+18.6	+38.6	+28
Walthall									
1972	1,372	38	38	(2)	81	112	386	(2)	1
1968	1,456	6	6	(2)	62	92	372	7	1
%Change	- 5.8	+533.3	+533.3	--	+30.6	+21.7	+ 3.8	--	-27
Warren									
1972	11,754	44(4)	830	4,644	509	395	2,555	500	2,0
1968	10,245	15(4)	544	4,387	355	404	1,194	365	1,8
%Change	+14.7	+193.3	+52.6	+ 5.9	+43.4	- 2.2	+16.5	+37.0	+11

ble 29.-(continued)

ea d ar	Total	Agric. etc.	Con- struc.	Mfg.	Trans. etc.	Whsl. Trade	Rtl. Trade	Finance	Services
shington									
972	15,898	89(4)	1,202	4,791	2,040	850	3,605	763	2,440
968	13,409	63(4)	979	4,470	1,638	853	2,787	650	1,902
Change	+18.6	+41.3	+22.8	+ 7.2	+24.5	- 0.4	+29.4	+17.4	+28.3
yne									
972	2,161	221(3)	68	1,132	73	39	386	77	152
968	1,877	215(3)	56	953	47	47	341	55	149
Change	+15.1	+ 2.8	+21.4	+18.8	+55.3	-17.0	+13.2	+40.0	+ 2.0
bster									
972	1,571	(2)	64	886	(2)	51	307	35	148
968	1,164	(2)	77	633	14	51	249	37	94
Change	+35.0	--	-16.9	+40.0	--	--	+23.3	- 5.4	+57.4
lkinson									
972	1,509	34(3)	(2)	706	58	79	211	(2)	350
968	1,304	34(3)	16	665	15	58	204	37	248
Change	+15.7	--	--	+ 6.2	+286.7	+36.2	+ 3.4	--	+41.1
nston									
972	4,172	(2)	423	2,521	129	50	642	79	254
968	2,979	20(4)	248	1,720	103	65	493	68	185
Change	+40.0	--	+70.6	+46.6	+25.2	-23.1	+30.2	+16.2	+37.3
lobusha									
972	2,209	(2)	179	1,397	42	12	347	44	167
968	1,945	(2)	116	1,223	35	12	287	37	199
Change	+13.6	--	+54.3	+14.2	+20.0	--	+20.9	+18.9	-16.1
zoo									
972	4,425	417	135	1,400	268	262	1,096	151	689
968	4,035	171	390	1,380	252	220	975	157	465
Change	+ 9.7	+143.9	-65.4	+ 1.4	+ 6.3	+19.1	+12.4	- 3.8	+48.2

urce: U.S. Bureau of the Census, County Business Patterns, 1968, Report No. CBP-68-1, ble 1B; Report No. CBP-68-26 Table 2; 1972, Report No. CBP-72-1, Talbe 1B, Report No. BP-72-26 (Washington, D.C.: USGPO), Table 2.

TABLE 30. NUMBER OF HOUSING UNITS, OCCUPIED AND VACANT, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Season
United States					
Total	68,671,920	2,072,887	63,445,192	4,253,892	972,836
Urban	50,145,051	810,900	47,567,372	2,435,108	142,571
Rural	18,526,869	1,261,987	15,877,820	1,818,784	830,265
Mississippi					
Total	699,150	30,581	636,724	60,370	2,056
Urban	319.955	8,078	296,956	22,686	313
Rural	379,195	22,503	339,768	37,684	1,743
Adams					
Total	11,949	224	11,025	924	--
Urban	6,858	20	6,298	560	--
Rural	5,091	204	4,727	364	--
Alcorn					
Total	9,376	342	8,801	571	4
Urban	4,230	94	4,042	184	4
Rural	5,146	248	4,759	387	--
Amite					
Total	4,339	180	3,869	460	10
Urban	--	--	--	--	--
Rural	4,339	180	3,869	460	10
Attala					
Total	6,590	223	5,972	592	26
Urban	2,616	48	2,434	177	5
Rural	3,974	175	3,538	415	21
Benton					
Total	2,631	99	2,024	607	--
Urban	--	--	--	--	--
Rural	2,631	99	2,024	607	--
Bolivar					
Total	13,829	297	12,708	1,085	36
Urban	6,102	123	5,808	289	5
Rural	7,727	174	6,900	796	31
Calhoun					
Total	4,885	140	4,528	357	--
Urban	--	--	--	--	--
Rural	4,885	140	4,528	357	--
Carroll					
Total	2,993	108	2,573	409	1
Urban	--	--	--	--	--
Rural	2,993	108	2,573	409	1
Chickasaw					
Total	5,358	413	4,949	393	1
Urban	1,915	108	1,832	83	--
Rural	3,443	305	3,117	310	1
Choctaw					
Total	2,849	55	2,571	278	--
Urban	--	--	--	--	--
Rural	2,849	55	2,571	278	--
Claiborne					
Total	3,047	66	2,669	363	1
Urban	1,002	8	915	87	--
Rural	2,045	58	1,754	276	1
Clarke					
Total	5,077	156	4,572	500	
Urban	916	44	877	39	--
Rural	4,161	112	3,695	461	

Table 30.-(continued)

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Seasonal
Clay					
Total	5,663	252	5,318	333	12
Urban	2,891	29	2,741	150	--
Rural	2,772	223	2,577	183	12
Coahoma					
Total	12,736	254	11,185	1,508	43
Urban	6,987	51	6,559	428	--
Rural	5,749	203	4,626	1,080	43
Copiah					
Total	7,646	261	7,093	553	--
Urban	2,862	45	2,683	179	--
Rural	4,784	216	4,410	374	--
Covington					
Total	4,254	231	3,981	264	9
Urban	--	--	--	--	--
Rural	4,254	231	3,981	264	9
De Soto					
Total	10,205	894	9,304	748	153
Urban	2,538	20	2,378	160	--
Rural	7,667	874	6,926	588	153
Forrest					
Total	18,961	535	17,546	1,393	22
Urban	14,643	356	13,758	885	--
Rural	4,318	179	3,788	508	22
Franklin					
Total	2,781	132	2,531	245	5
Urban	--	--	--	--	--
Rural	2,781	132	2,531	245	5
George					
Total	3,924	293	3,576	319	29
Urban	--	--	--	--	--
Rural	3,924	293	3,576	319	29
Greene					
Total	2,718	116	2,448	270	--
Urban	--	--	--	--	--
Rural	2,718	116	2,448	270	--
Grenada					
Total	6,509	225	5,886	618	5
Urban	3,384	60	3,164	220	--
Rural	3,125	165	2,722	398	5
Hancock					
Total	7,330	560	5,152	2,044	134
Urban	4,271	286	3,031	1,123	117
Rural	3,059	274	2,121	921	17
Harrison					
Total	41,579	3,544	37,531	4,017	31
Urban	34,654	2,394	31,215	3,417	22
Rural	6,925	1,150	6,316	600	9
Hinds					
Total	67,261	702	63,266	3,969	26
Urban	57,777	311	54,436	3,327	14
Rural	9,484	391	8,830	642	12
Holmes					
Total	7,097	117	6,342	741	14
Urban	1,944	40	1,802	136	6
Rural	5,153	77	4,540	605	8
Humphreys					
Total	4,233	93	3,863	287	83
Urban	1,112	5	1,016	96	--
Rural	3,121	88	2,847	191	83

Table 30.-(continued)

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Seasonal
Issaquena					
Total	866	81	727	133	6
Urban	--	--	--	--	--
Rural	866	81	727	133	6
Itawamba					
Total	5,616	335	5,206	406	4
Urban	946	43	892	54	--
Rural	4,670	292	4,314	352	4
Jackson					
Total	27,584	2,268	24,584	2,929	71
Urban	19,312	682	17,586	1,738	20
Rural	8,272	1,586	7,030	1,191	51
Jasper					
Total	4,973	237	4,590	371	12
Urban	--	--	--	--	--
Rural	4,973	237	4,590	371	12
Jefferson					
Total	2,648	56	2,422	226	--
Urban	--	--	--	--	--
Rural	2,648	56	2,422	226	--
Jefferson Davis					
Total	3,883	149	3,604	279	--
Urban	--	--	--	--	--
Rural	3,883	149	3,604	279	--
Jones					
Total	18,171	895	17,047	1,124	--
Urban	9,320	193	8,789	531	--
Rural	8,851	702	8,258	593	--
Kemper					
Total	3,147	91	2,808	335	4
Urban	--	--	--	--	--
Rural	3,147	91	2,808	335	4
Lafayette					
Total	7,226	549	6,431	763	32
Urban	3,730	245	3,523	207	--
Rural	3,496	304	2,908	556	32
Lamar					
Total	4,929	404	4,506	386	37
Urban	114	81	114	--	--
Rural	4,815	323	4,392	386	37
Lauderdale					
Total	22,728	1,004	20,963	1,714	51
Urban	15,956	255	14,829	1,118	9
Rural	6,772	749	6,134	596	42
Lawrence					
Total	3,586	248	3,286	296	4
Urban	--	--	--	--	--
Rural	3,586	248	3,286	296	4
Leake					
Total	5,745	275	5,241	500	4
Urban	1,092	60	1,040	52	--
Rural	4,653	215	4,201	448	4
Lee					
Total	15,405	769	14,422	940	43
Urban	7,053	114	6,670	383	--
Rural	8,352	655	7,752	557	43
Leflore					
Total	13,022	265	11,859	1,085	78
Urban	7,566	94	7,077	481	8
Rural	5,456	171	4,782	604	70

Table 30.-(continued)

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Seasonal
Lincoln					
Total	8,650	492	7,958	688	4
Urban	3,696	122	3,387	309	--
Rural	4,954	370	4,571	379	4
Lowndes					
Total	15,395	923	14,084	1,301	10
Urban	9,329	157	8,553	776	--
Rural	6,066	766	5,531	525	10
Madison					
Total	8,188	243	7,593	591	4
Urban	3,135	10	2,972	159	4
Rural	5,053	233	4,621	432	--
Marion					
Total	7,356	244	6,704	639	13
Urban	2,618	44	2,408	210	--
Rural	4,738	200	4,296	429	13
Marshall					
Total	6,542	544	5,806	731	5
Urban	1,586	67	1,506	75	5
Rural	4,956	477	4,300	656	--
Monroe					
Total	11,151	505	10,316	824	11
Urban	4,658	117	4,369	289	--
Rural	6,493	388	5,947	535	11
Montgomery					
Total	4,235	94	3,858	377	--
Urban	1,840	31	1,695	145	--
Rural	2,395	63	2,163	232	--
Neshoba					
Total	7,048	291	6,362	679	7
Urban	2,207	61	2,066	141	--
Rural	4,841	230	4,296	538	7
Newton					
Total	6,534	266	5,853	677	4
Urban	1,174	72	1,104	70	--
Rural	5,360	194	4,749	607	4
Noxubee					
Total	4,393	118	3,739	634	20
Urban	928	37	892	36	--
Rural	3,465	81	2,847	598	20
Oktibbeha					
Total	8,000	678	7,544	456	--
Urban	4,324	260	4,116	209	--
Rural	3,676	418	3,428	248	--
Panola					
Total	7,944	387	7,288	645	11
Urban	1,252	76	1,224	28	--
Rural	6,692	311	6,064	617	11
Pearl River					
Total	8,850	508	8,087	728	35
Urban	3,353	94	3,077	276	--
Rural	5,497	414	5,010	452	35
Perry					
Total	2,852	177	2,603	249	--
Urban	--	--	--	--	--
Rural	2,852	177	2,603	249	--
Pike					
Total	10,599	306	9,699	892	8
Urban	4,366	44	3,992	374	--
Rural	6,233	262	5,707	518	8

Table 30.-(continued)

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Seasonal
Pontotoc					
Total	5,908	264	5,534	364	10
Urban	1,237	37	1,180	57	--
Rural	4,671	227	4,354	307	10
Prentiss					
Total	6,758	219	6,330	428	--
Urban	2,159	36	2,012	147	--
Rural	4,599	183	4,318	281	--
Quitman					
Total	4,890	182	4,192	684	14
Urban	844	16	780	64	--
Rural	4,046	166	3,412	620	14
Rankin					
Total	12,097	1,011	11,166	925	6
Urban	3,720	198	3,531	189	--
Rural	8,377	813	7,635	736	6
Scott					
Total	6,644	276	6,146	488	10
Urban	2,233	45	2,071	157	5
Rural	4,411	231	4,075	331	5
Sharkey					
Total	2,474	79	2,276	183	15
Urban	--	--	--	--	--
Rural	2,474	79	2,276	183	15
Simpson					
Total	6,419	359	5,831	588	--
Urban	1,014	59	943	71	--
Rural	5,405	300	4,888	517	--
Smith					
Total	4,444	269	4,040	384	20
Urban	--	--	--	--	--
Rural	4,444	269	4,040	384	20
Stone					
Total	2,499	165	2,258	189	52
Urban	970	25	914	56	--
Rural	1,529	140	1,344	133	52
Sunflower					
Total	10,183	186	9,222	885	76
Urban	3,502	51	3,326	176	--
Rural	6,681	135	5,896	709	76
Tallahatchie					
Total	6,159	220	5,223	936	--
Urban	984	46	942	42	--
Rural	5,175	174	4,281	894	--
Tate					
Total	5,204	283	4,810	394	--
Urban	1,227	69	1,166	61	--
Rural	3,977	214	3,644	333	--
Tippah					
Total	5,611	220	4,881	681	49
Urban	1,243	53	1,164	79	--
Rural	4,368	167	3,717	602	49
Tishomingo					
Total	5,725	276	4,895	505	325
Urban	--	--	--	--	--
Rural	5,725	276	4,895	505	325
Tunica					
Total	3,876	83	3,073	788	15
Urban	--	--	--	--	--
Rural	3,876	83	2,073	788	15

Table 30.-(continued)

Area	Number of Housing Units		Number of Occupied Units	Number of Vacant Units	
	Total	Mobile		Year-Round	Migratory or Seasonal
Union					
Total	6,710	356	6,109	596	5
Urban	2,301	85	2,141	160	--
Rural	4,409	271	3,968	436	5
Walthall					
Total	4,011	100	3,586	425	--
Urban	--	--	--	--	--
Rural	4,011	100	3,586	425	--
Warren					
Total	15,004	534	13,559	1,431	14
Urban	9,133	53	8,325	808	--
Rural	5,871	481	5,234	623	14
Washington					
Total	21,018	384	19,432	1,574	12
Urban	14,914	68	14,118	790	6
Rural	6,104	316	5,314	784	6
Wayne					
Total	5,088	308	4,735	353	--
Urban	1,414	78	1,337	77	--
Rural	3,674	230	3,398	276	--
Webster					
Total	3,391	127	3,116	275	--
Urban	--	--	--	--	--
Rural	3,391	127	3,116	275	--
Wilkinson					
Total	3,322	137	3,065	275	--
Urban	--	--	--	--	--
Rural	3,322	137	3,065	275	--
Winston					
Total	5,863	225	5,450	372	41
Urban	2,267	44	2,146	107	14
Rural	3,596	181	3,304	265	27
Yalobusha					
Total	4,145	176	3,626	484	35
Urban	1,250	61	1,183	67	--
Rural	2,895	115	2,443	417	35
Yazoo					
Total	8,649	228	7,739	869	41
Urban	3,656	53	3,352	304	--
Rural	4,993	175	4,387	565	41

Source: U.S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1, Table 29; Report HC(S1)-6, Table 32; Volume 1, Part 26 (Washington, D.C.: USGPO), Tables 2, 35, 60, and 62.

TABLE 31.-NUMBER OF HOUSING UNITS OCCUPIED BY OWNERS AND RENTERS, BY PLACE OF RESIDENCE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
United States						
Total	39,885,545	27,785,109	12,100,436	23,559,647	19,782,263	3,777,384
White	37,005,102	25,533,855	11,471,247	19,600,904	16,296,881	3,304,023
Negro	2,567,761	2,021,962	545,799	3,606,592	3,187,017	419,575
Mississippi						
Total	421,900	184,128	237,772	214,824	112,828	101,996
White	324,915	141,216	183,699	113,924	66,394	47,530
Negro	96,385	42,612	53,773	99,879	46,046	53,833
Adams						
Total	6,876	3,535	3,341	4,149	2,763	1,386
White	4,501	2,265	2,236	1,569	1,063	506
Negro	2,369	1,270	1,099	2,580	1,700	880
Alcorn						
Total	6,229	2,662	3,567	2,572	1,380	1,192
White	5,786	2,328	3,458	2,140	1,061	1,079
Negro	438	329	109	428	319	109
Amite						
Total	2,841	--	2,841	1,028	--	1,028
White	1,930	--	1,930	401	--	401
Negro	911	--	911	627	--	627
Attala						
Total	4,197	1,611	2,586	1,775	823	952
White	3,152	1,210	1,942	875	454	421
Negro	1,041	397	644	895	364	531
Benton						
Total	1,412	--	1,412	612	--	612
White	1,148	--	1,148	293	--	293
Negro	264	--	264	319	--	319
Bolivar						
Total	6,800	3,510	3,290	5,908	2,298	3,610
White	3,868	2,200	1,668	1,865	1,010	855
Negro	2,921	1,299	1,622	4,037	1,282	2,755
Calhoun						
Total	3,257	--	3,257	1,271	--	1,271
White	2,981	--	2,981	755	--	755
Negro	276	--	276	516	--	516
Carroll						
Total	1,744	--	1,744	829	--	829
White	1,202	--	1,202	313	--	313
Negro	542	--	542	516	--	516
Chickasaw						
Total	3,401	1,218	2,183	1,548	614	934
White	2,673	941	1,732	898	417	481
Negro	728	277	451	650	197	453
Choctaw						
Total	2,052	--	2,052	519	--	519
White	1,676	--	1,676	351	--	351
Negro	376	--	376	168	--	168
Claiborne						
Total	1,643	479	1,164	1,026	436	590
White	656	233	423	228	120	108
Negro	987	246	741	798	316	482

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Clarke						
Total	3,542	633	2,909	1,030	244	786
White	2,598	467	2,131	592	180	412
Negro	938	166	772	428	64	364
Clay						
Total	3,515	1,627	1,888	1,803	1,114	689
White	2,284	1,097	1,187	863	655	208
Negro	1,231	530	701	940	459	481
Coahoma						
Total	5,068	3,513	1,555	6,117	3,046	3,071
White	3,123	2,204	919	1,485	1,023	462
Negro	1,903	1,277	626	4,614	2,008	2,606
Copiah						
Total	5,070	1,840	3,230	2,023	843	1,180
White	3,275	1,126	2,149	824	422	402
Negro	1,795	714	1,081	1,199	421	778
Covington						
Total	3,184	--	3,184	797	--	797
White	2,441	--	2,441	498	--	498
Negro	743	--	743	299	--	299
De Soto						
Total	6,371	2,215	4,156	2,933	163	2,770
White	5,464	2,215	3,249	1,211	158	1,053
Negro	907	--	907	1,722	5	1,717
Forrest						
Total	11,759	8,702	3,057	5,787	5,506	731
White	9,274	6,807	2,467	4,381	3,830	551
Negro	2,471	1,881	590	1,360	1,180	180
Franklin						
Total	1,900	--	1,900	631	--	631
White	1,399	--	1,399	311	--	311
Negro	501	--	501	320	--	320
George						
Total	2,997	--	2,997	579	--	579
White	2,734	--	2,734	518	--	518
Negro	263	--	263	61	--	61
Greene						
Total	2,017	--	2,017	431	--	431
White	1,655	--	1,655	357	—	357
Negro	357	--	357	74	--	74
Grenada						
Total	3,603	1,821	1,782	2,283	1,343	940
White	2,748	1,394	1,354	946	542	404
Negro	855	427	428	1,337	801	536
Hancock						
Total	3,804	2,076	1,728	1,348	955	393
White	3,352	1,773	1,579	1,164	787	377
Negro	441	298	143	179	163	16
Harrison						
Total	22,806	17,651	5,155	14,725	13,564	1,161
White	19,888	14,882	5,006	11,782	10,723	1,059
Negro	2,909	2,760	149	2,880	2,778	102
Hinds						
Total	40,480	34,358	6,122	22,786	20,078	2,708
White	30,966	27,071	3,895	11,758	10,784	974
Negro	9,482	7,264	2,218	11,015	9,285	1,730

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Holmes						
Total	4,023	1,251	2,772	2,319	551	1,768
White	1,842	764	1,078	599	237	362
Negro	2,171	482	1,689	1,720	314	1,406
Humphreys						
Total	1,930	528	1,402	1,933	488	1,445
White	1,155	331	824	508	128	380
Negro	770	197	573	1,425	360	1,065
Issaquena						
Total	357	--	357	370	--	370
White	222	--	222	106	--	106
Negro	135	--	135	264	--	264
Itawamba						
Total	4,194	675	3,519	1,012	217	795
White	4,019	608	3,411	918	198	720
Negro	175	67	108	94	19	75
Jackson						
Total	18,503	12,604	5,899	6,081	4,950	1,131
White	16,426	10,741	5,685	4,762	3,720	1,042
Negro	2,067	1,858	209	1,304	1,215	89
Jasper						
Total	3,620	--	3,620	970	--	970
White	2,443	--	2,443	446	--	446
Negro	1,177	--	1,177	524	--	524
Jefferson						
Total	1,596	--	1,596	826	--	826
White	626	--	626	174	--	174
Negro	970	--	970	652	--	652
Jefferson Davis						
Total	2,916	--	2,916	688	--	688
White	1,749	--	1,749	331	--	331
Negro	1,167	--	1,167	357	--	357
Jones						
Total	12,210	5,494	6,716	4,837	3,295	1,542
White	10,445	4,294	6,151	3,077	1,794	1,283
Negro	1,765	1,200	565	1,739	1,495	244
Kemper						
Total	1,954	--	1,954	854	--	854
White	1,276	--	1,276	260	--	260
Negro	668	--	668	567	--	567
Lafayette						
Total	3,877	1,774	2,103	2,554	1,749	805
White	2,982	1,497	1,485	1,936	1,475	461
Negro	895	277	618	607	263	344
Lamar						
Total	3,592	96	3,496	914	18	896
White	3,212	96	3,116	777	18	759
Negro	380	--	380	137	--	137
Lauderdale						
Total	13,370	8,957	4,413	7,593	5,872	1,721
White	10,674	6,979	3,695	4,573	3,471	1,102
Negro	2,692	1,974	718	2,999	2,396	603
Lawrence						
Total	2,637	--	2,637	649	--	649
White	2,004	--	2,004	382	--	382
Negro	628	--	628	267	--	267

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Leake						
Total	4,142	756	3,386	1,099	284	815
White	3,100	637	2,463	618	224	394
Negro	1,016	119	897	398	57	341
Lee						
Total	9,994	4,261	5,733	4,428	2,409	2,019
White	8,798	3,899	4,899	3,125	1,676	1,449
Negro	1,191	362	829	1,303	733	570
Leflore						
Total	4,972	3,140	1,832	6,887	3,937	2,950
White	3,783	2,492	1,291	2,004	1,334	670
Negro	1,182	648	534	4,857	2,577	2,280
Lincoln						
Total	5,822	2,151	3,671	2,136	1,236	900
White	4,634	1,533	3,101	1,290	743	547
Negro	1,188	618	570	841	493	348
Lowndes						
Total	8,155	4,246	3,909	5,929	4,307	1,622
White	6,285	3,108	3,177	3,700	2,754	946
Negro	1,870	1,138	732	2,214	1,538	676
Madison						
Total	4,758	1,807	2,951	2,835	1,165	1,670
White	2,791	1,133	1,658	776	382	394
Negro	1,967	674	1,293	2,059	783	1,276
Marion						
Total	5,165	1,626	3,539	1,539	782	757
White	3,973	1,278	2,695	1,013	521	492
Negro	1,192	348	844	521	261	260
Marshall						
Total	3,480	864	2,616	2,326	642	1,684
White	2,196	541	1,655	655	255	400
Negro	1,284	323	961	1,671	387	1,284
Monroe						
Total	7,358	2,997	4,361	2,958	1,372	1,586
White	5,905	2,314	3,591	1,833	860	973
Negro	1,453	683	770	1,125	512	613
Montgomery						
Total	2,667	1,107	1,560	1,191	588	603
White	1,886	817	1,069	581	321	260
Negro	781	290	491	610	267	343
Neshoba						
Total	4,731	1,460	3,271	1,631	606	1,025
White	4,112	1,160	2,952	945	360	585
Negro	568	300	268	440	236	204
Newton						
Total	4,550	758	3,792	1,303	346	957
White	3,633	529	3,104	758	203	555
Negro	894	229	665	482	143	339
Noxubee						
Total	2,365	605	1,760	1,374	287	1,087
White	1,314	423	891	284	126	158
Negro	1,051	182	869	1,084	161	923
Oktibbeha						
Total	4,650	2,243	2,407	2,894	1,873	1,021
White	3,258	1,803	1,455	1,983	1,479	504
Negro	1,392	440	952	871	354	517

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Panola						
Total	4,520	846	3,674	2,768	378	2,390
White	3,180	740	2,440	1,085	287	798
Negro	1,340	106	1,234	1,683	91	1,592
Pearl River						
Total	6,122	2,085	4,037	1,965	992	973
White	5,278	1,487	3,791	1,520	665	855
Negro	838	592	246	441	327	114
Perry						
Total	2,083	--	2,083	520	--	520
White	1,655	--	1,655	384	--	384
Negro	428	--	428	131	--	131
Pike						
Total	6,997	2,613	4,384	2,702	1,379	1,323
White	4,778	2,074	2,704	1,443	836	607
Negro	2,219	539	1,680	1,259	543	716
Pontotoc						
Total	4,106	836	3,270	1,428	344	1,084
White	3,630	720	2,910	1,120	288	832
Negro	476	116	360	308	56	252
Prentiss						
Total	4,573	1,325	3,248	1,757	687	1,070
White	4,256	1,173	3,083	1,565	595	970
Negro	317	152	165	192	92	100
Quitman						
Total	2,167	498	1,669	2,025	282	1,743
White	1,370	242	1,128	729	137	592
Negro	785	250	535	1,296	145	1,151
Rankin						
Total	8,924	2,925	5,999	2,242	606	1,636
White	7,262	2,801	4,461	1,506	556	950
Negro	1,652	119	1,533	736	50	686
Scott						
Total	4,503	1,559	2,944	1,643	512	1,131
White	3,387	1,135	2,252	1,074	362	712
Negro	1,116	424	692	569	150	419
Sharkey						
Total	864	--	864	1,412	--	1,412
White	617	--	617	406	--	406
Negro	247	--	247	1,006	--	1,006
Simpson						
Total	4,358	688	3,670	1,473	255	1,218
White	3,413	587	2,826	965	224	741
Negro	945	101	844	508	31	477
Smith						
Total	3,196	--	3,196	844	--	844
White	2,899	--	2,899	542	--	542
Negro	297	--	297	291	--	291
Stone						
Total	1,810	700	1,110	448	214	234
White	1,480	563	917	345	163	182
Negro	330	137	193	103	51	52
Sunflower						
Total	4,448	2,132	2,316	4,774	1,194	3,580
White	2,879	1,345	1,534	1,278	373	905
Negro	1,546	775	771	3,489	821	2,668

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Tallahatchie						
Total	2,512	597	1,915	2,711	345	2,366
White	1,827	350	1,477	711	158	553
Negro	673	242	431	1,990	177	1,813
Tate						
Total	2,851	690	2,161	1,959	476	1,483
White	2,169	539	1,630	833	324	509
Negro	682	151	531	1,126	152	974
Tippah						
Total	3,554	803	2,751	1,327	361	966
White	3,184	711	2,473	1,058	280	778
Negro	365	92	273	269	81	188
Tishomingo						
Total	3,769	--	3,769	1,126	--	1,126
White	3,627	--	3,627	1,112	--	1,112
Negro	142	--	142	14	--	14
Tunica						
Total	953	--	953	2,120	--	2,120
White	609	--	609	455	--	455
Negro	344	--	344	1,665	--	1,665
Union						
Total	4,321	1,388	2,933	1,788	753	1,035
White	3,931	1,159	2,772	1,382	536	846
Negro	390	229	161	406	217	189
Walthall						
Total	2,815	--	2,815	771	--	771
White	2,067	--	2,067	400	--	400
Negro	748	--	748	371	--	371
Warren						
Total	8,313	4,537	3,776	5,246	3,788	1,458
White	5,822	2,815	3,007	2,391	1,685	706
Negro	2,485	1,716	769	2,837	2,096	741
Washington						
Total	11,132	8,455	2,677	8,300	5,663	2,637
White	6,730	4,876	1,854	3,003	2,162	841
Negro	4,358	3,535	823	5,282	3,486	1,796
Wayne						
Total	3,660	852	2,808	1,075	485	590
White	2,745	577	2,168	685	327	358
Negro	903	275	628	390	158	232
Webster						
Total	2,323	--	2,323	793	--	793
White	2,064	--	2,064	507	--	507
Negro	259	--	259	286	--	286
Wilkinson						
Total	1,814	--	1,814	1,251	--	1,251
White	931	--	931	275	--	275
Negro	883	--	883	972	--	972
Winston						
Total	4,159	1,497	2,662	1,291	649	642
White	3,024	1,056	1,968	687	409	278
Negro	1,131	437	694	565	240	325
Yalobusha						
Total	2,488	784	1,704	1,138	399	739
White	1,902	611	1,291	619	284	335
Negro	586	173	413	519	115	404

Table 31.-(continued)

Area and Race	Number Of Owner Occupied Units			Number of Renter Occupied Units		
	Total	Urban	Rural	Total	Urban	Rural
Yazoo						
Total	4,450	2,033	2,417	3,289	1,319	1,970
White	3,008	1,050	1,958	1,035	403	632
Negro	1,442	983	459	2,254	916	1,338

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1, Table 29; Volume 1, Part 26 (Washington, D. C.: USGPO), Tables 2 and 60.

TABLE 32.-HOUSING SPACE UTILIZATION(1): PERSONS PER ROOM, BY RACE, AND PERSONS IN CROWDED HOUSING, BY TENURE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
United States					
Total	92.0	6.0	2.0	6.4	10.6
Negro	80.6	12.4	6.9	15.5	22.2
Non-Negro	93.2	5.2	1.4	--	--
Mississippi					
Total	84.9	8.4	6.7	19.7	47.4
Negro	67.8	14.3	17.9	47.6	67.2
Non-Negro	92.5	5.8	1.7	12.4	23.2
Adams					
Total	83.9	9.5	6.6	22.2	47.0
Negro	71.9	14.6	13.5	41.1	60.6
Non-Negro	93.3	5.5	1.2	10.9	20.9
Alcorn					
Total	90.7	6.6	2.7	14.1	31.4
Negro	77.1	12.7	10.2	37.2	53.2
Non-Negro	92.2	6.0	1.8	12.0	26.1
Amite					
Total	82.9	9.2	7.9	28.6	54.5
Negro	67.9	14.4	17.6	49.9	67.6
Non-Negro	93.0	5.7	1.3	13.8	21.5
Attala					
Total	86.1	7.9	6.0	19.4	49.9
Negro	70.1	14.0	16.0	29.8	74.2
Non-Negro	93.8	5.0	1.2	5.5	15.0
Benton					
Total	78.7	9.6	11.7	29.0	66.4
Negro	49.1	16.1	34.8	65.9	81.3
Non-Negro	90.5	7.1	2.4	14.3	39.0
Bolivar					
Total	76.7	9.5	13.8	33.2	60.6
Negro	63.6	12.8	23.6	55.6	72.2
Non-Negro	92.4	5.6	2.0	10.4	26.1
Calhoun					
Total	87.3	7.2	5.5	16.5	50.7
Negro	57.7	18.3	24.0	54.7	72.1
Non-Negro	93.7	4.8	1.5	10.1	29.6

(1) See Table 14 for the average number of persons per housing unit. Also, note that the first three columns of this table give percents of housing units and the last two given percents of people.

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Carroll					
Total	79.7	10.1	10.2	28.1	59.9
Negro	62.7	15.8	21.6	51.5	73.6
Non-Negro	91.6	6.1	2.3	13.4	27.3
Chickasaw					
Total	84.1	9.2	6.7	23.2	50.2
Negro	64.1	17.0	18.9	50.4	71.1
Non-Negro	91.8	6.2	2.0	13.1	28.2
Choctaw					
Total	87.1	7.5	5.4	23.3	41.8
Negro	67.3	14.0	18.8	52.4	66.6
Non-Negro	92.5	5.8	1.8	14.2	23.6
Claiborne					
Total	79.2	10.3	10.5	37.6	50.4
Negro	72.0	13.0	15.0	49.9	58.3
Non-Negro	93.2	5.1	1.7	12.7	18.2
Clarke					
Total	86.7	8.2	5.1	23.1	44.8
Negro	72.3	13.9	13.8	44.6	67.0
Non-Negro	92.8	5.7	1.4	13.3	22.3
Clay					
Total	83.8	8.5	7.7	24.4	49.8
Negro	69.3	13.5	17.1	45.2	67.8
Non-Negro	93.8	5.0	1.2	10.3	19.5
Coahoma					
Total	78.4	8.7	12.8	24.4	58.8
Negro	67.3	11.8	21.0	46.8	68.0
Non-Negro	93.9	4.6	1.5	8.5	20.7
Copiah					
Total	84.0	8.9	7.2	26.8	51.0
Negro	70.2	14.7	15.1	47.3	65.3
Non-Negro	94.0	4.6	1.3	11.1	20.3
Covington					
Total	85.4	9.4	5.2	25.6	42.5
Negro	66.6	17.9	15.6	54.6	61.3
Non-Negro	91.8	6.5	1.7	13.0	29.3
De Soto					
Total	81.5	9.3	9.2	19.3	62.5
Negro	54.9	17.1	28.0	58.5	78.0
Non-Negro	92.0	6.2	1.8	10.9	31.5
Forrest					
Total	90.1	6.4	3.5	17.4	28.8
Negro	76.9	12.4	10.6	39.5	55.4
Non-Negro	93.8	4.7	1.5	10.3	17.8
Franklin					
Total	86.0	8.5	5.5	24.7	42.9
Negro	70.9	14.0	15.1	48.7	61.3
Non-Negro	93.3	5.8	0.9	13.2	19.3
George					
Total	85.0	10.1	4.9	26.5	36.2
Negro	66.8	13.9	19.4	55.0	66.1
Non-Negro	86.9	9.7	3.5	23.0	31.3
Greene					
Total	83.8	11.1	5.2	28.5	38.4
Negro	71.7	17.0	11.3	48.2	52.9
Non-Negro	86.5	9.7	3.8	23.1	33.6

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Grenada					
Total	84.0	8.2	7.8	20.0	51.8
Negro	66.7	14.0	19.3	47.1	68.1
Non-Negro	94.3	4.8	1.0	9.3	19.7
Hancock					
Total	85.7	9.5	4.9	24.9	38.0
Negro	76.3	12.0	11.8	41.5	57.0
Non-Negro	87.0	9.1	3.9	22.8	34.4
Harrison					
Total	88.6	8.2	3.2	19.3	27.6
Negro	75.1	14.4	10.6	41.2	52.8
Non-Negro	91.1	7/0	1.9	15.5	20.3
Hinds					
Total	86.9	7.2	5.9	17.9	43.2
Negro	68.5	14.9	16.6	44.0	63.4
Non-Negro	95.7	3.5	0.8	7.7	1.3
Holmes					
Total	78.9	10.0	11.1	32.8	59.0
Negro	69.3	13.5	17.3	47.1	68.5
Non-Negro	94.2	4.4	1.4	10.2	20.3
Humphreys					
Total	75.5	9.9	14.5	28.3	63.1
Negro	62.4	13.3	24.3	49.3	73.5
Non-Negro	92.9	5.5	1.6	10.4	23.5
Issaquena					
Total	75.2	10.2	14.6	34.0	60.5
Negro	63.4	12.3	24.3	58.0	69.5
Non-Negro	89.6	7.6	2.7	13.7	33.7
Itawamba					
Total	90.2	7.4	2.4	14.9	35.8
Negro	78.5	13.0	8.4	40.3	43.4
Non-Negro	90.8	7.1	2.1	13.4	35.3
Jackson					
Total	86.2	9.9	3.8	22.9	33.8
Negro	69.1	17.0	13.9	50.6	56.8
Non-Negro	89.0	8.8	2.2	18.5	26.3
Jasper					
Total	85.8	9.0	5.3	24.7	45.8
Negro	70.9	17.1	12.0	45.8	61.7
Non-Negro	94.5	4.2	1.3	9.8	19.2
Jefferson					
Total	75.0	13.4	11.6	43.6	57.3
Negro	66.6	17.1	16.3	55.1	64.5
Non-Negro	92.1	5.8	2.1	16.0	20.4
Jefferson Davis					
Total	84.0	10.1	5.9	29.2	46.6
Negro	72.3	15.3	12.4	47.0	62.7
Non-Negro	92.7	6.2	1.1	13.5	23.5
Jones					
Total	89.3	7.0	3.8	15.7	38.1
Negro	73.5	13.0	13.5	37.2	61.7
Non-Negro	93.4	5.4	1.2	11.2	20.6
Kemper					
Total	80.8	9.1	10.2	28.5	61.0
Negro	64.0	15.1	21.0	51.4	72.3
Non-Negro	94.0	4.3	1.7	10.7	24.2

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Lafayette					
Total	86.0	7.6	6.4	21.5	36.8
Negro	65.5	16.6	17.9	52.5	65.9
Non-Negro	92.2	4.9	2.9	8.0	21.4
Lamar					
Total	87.4	8.9	3.8	23.7	29.9
Negro	73.4	14.0	12.7	51.0	47.4
Non-Negro	89.2	8.2	2.6	19.8	26.6
Lauderdale					
Total	89.3	6.5	4.2	15.9	35.7
Negro	73.8	13.3	12.9	40.9	58.8
Non-Negro	95.0	4.1	1.0	8.4	15.8
Lawrence					
Total	87.5	8.5	4.0	22.7	41.8
Negro	74.4	15.0	10.6	44.8	60.9
Non-Negro	92.4	6.1	1.5	14.1	24.4
Leake					
Total	86.2	8.4	5.3	23.9	47.3
Negro	69.8	16.6	13.6	46.1	66.3
Non-Negro	92.5	5.3	2.2	13.4	30.6
Lee					
Total	89.3	7.1	3.6	14.7	36.7
Negro	72.1	14.6	13.3	43.1	57.7
Non-Negro	93.0	5.5	1.6	10.0	25.4
Leflore					
Total	78.2	8.9	12.9	17.5	58.4
Negro	63.3	12.7	24.1	42.2	69.9
Non-Negro	93.6	5.0	1.4	8.3	21.5
Lincoln					
Total	87.9	7.9	4.3	19.5	39.7
Negro	72.7	14.4	12.9	42.5	62.0
Non-Negro	93.0	5.6	1.3	12.0	19.9
Lowndes					
Total	85.8	7.6	6.6	19.5	40.7
Negro	66.5	13.8	19.7	48.0	68.9
Non-Negro	93.7	5.0	1.3	9.3	18.4
Madison					
Total	76.7	11.1	12.2	32.3	62.3
Negro	61.9	16.6	21.5	54.5	72.2
Non-Negro	93.3	5.0	1.7	10.2	25.2
Marion					
Total	86.6	8.6	4.9	23.3	43.2
Negro	72.9	14.7	12.4	43.8	65.4
Non-Negro	91.3	6.5	2.3	15.4	27.5
Marshall					
Total	72.4	11.9	15.8	33.2	70.2
Negro	56.0	16.0	28.0	52.6	79.1
Non-Negro	89.3	7.6	3.2	17.6	33.8
Monroe					
Total	87.4	7.5	5.1	19.3	43.6
Negro	71.4	13.5	15.1	45.6	65.2
Non-Negro	92.8	5.5	1.8	11.2	26.0
Montgomery					
Total	84.5	9.0	6.5	24.0	50.8
Negro	68.9	15.6	15.5	47.4	66.7
Non-Negro	93.3	5.3	1.4	10.5	26.2

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Neshoba					
Total	87.4	7.8	4.9	18.1	46.0
Negro	70.5	15.6	13.9	47.5	59.2
Non-Negro	90.5	6.3	3.2	12.7	40.5
Newton					
Total	89.4	6.7	3.9	18.2	37.3
Negro	75.3	12.8	11.9	41.1	57.1
Non-Negro	93.7	4.8	1.5	11.2	22.8
Noxubee					
Total	74.7	10.5	14.8	34.6	67.6
Negro	59.3	14.9	25.8	56.8	76.9
Non-Negro	94.1	4.9	1.0	9.4	24.4
Oktibbeha					
Total	85.3	7.4	7.3	24.7	40.7
Negro	63.2	15.3	21.6	53.6	76.1
Non-Negro	94.8	4.0	1.2	8.5	13.0
Panola					
Total	78.9	9.4	11.7	26.7	61.3
Negro	60.7	14.7	24.6	53.2	74.9
Non-Negro	91.9	5.6	2.5	11.6	30.6
Pearl River					
Total	87.6	8.9	3.6	20.9	33.9
Negro	73.3	15.2	11.5	46.6	54.0
Non-Negro	90.3	7.7	2.0	15.9	27.4
Perry					
Total	84.9	9.5	5.5	28.4	36.6
Negro	71.4	12.1	16.6	50.2	62.7
Non-Negro	88.8	8.8	2.4	21.3	24.0
Pike					
Total	87.3	7.8	5.0	23.4	40.6
Negro	74.2	14.1	11.7	44.8	58.2
Non-Negro	94.6	4.2	1.2	9.9	17.9
Pontotoc					
Total	89.2	7.1	3.7	18.6	36.3
Negro	69.2	14.9	15.9	49.9	64.9
Non-Negro	92.3	5.9	1.8	13.3	25.6
Prentiss					
Total	88.4	7.9	3.7	17.9	38.3
Negro	64.2	16.7	19.1	47.3	75.7
Non-Negro	90.7	7.1	2.3	15.2	29.1
Quitman					
Total	77.7	9.5	12.8	29.3	59.1
Negro	64.6	12.8	22.5	51.9	71.6
Non-Negro	90.5	6.2	3.3	12.8	30.7
Rankin					
Total	86.6	9.3	4.1	22.4	39.9
Negro	69.5	16.5	14.0	50.5	64.0
Non-Negro	91.2	7.4	1.4	14.2	25.6
Scott					
Total	84.3	10.1	5.6	23.0	49.2
Negro	70.9	15.4	13.7	45.5	63.5
Non-Negro	89.5	8.1	2.4	13.6	39.5
Sharkey					
Total	74.3	9.7	16.0	20.9	63.1
Negro	58.9	13.6	27.5	50.0	74.1
Non-Negro	93.3	5.0	1.8	5.7	24.2

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Simpson					
Total	86.2	8.6	5.2	22.9	43.1
Negro	69.6	16.8	13.5	47.8	63.3
Non-Negro	91.7	5.9	2.4	13.5	31.1
Smith					
Total	86.7	8.5	4.8	19.9	48.5
Negro	60.2	18.5	21.3	50.4	72.3
Non-Negro	91.3	6.8	1.9	15.0	29.5
Stone					
Total	88.0	7.8	4.3	22.3	33.1
Negro	69.6	15.1	15.3	51.5	65.1
Non-Negro	92.4	6.0	1.6	13.7	20.3
Sunflower					
Total	75.2	10.3	14.5	26.9	63.4
Negro	60.2	14.5	25.3	52.2	73.7
Non-Negro	93.2	5.2	1.6	9.5	23.8
Tallahatchie					
Total	77.4	9.3	13.3	23.3	62.3
Negro	63.2	12.7	24.2	48.4	70.8
Non-Negro	92.2	5.7	2.1	10.6	30.6
Tate					
Total	78.6	9.0	12.4	25.2	62.6
Negro	56.7	13.3	30.0	54.3	78.3
Non-Negro	91.6	6.4	1.9	12.6	27.4
Tippah					
Total	88.4	9.6	4.0	18.2	37.1
Negro	69.9	15.0	15.0	45.6	63.4
Non-Negro	91.1	6.6	2.3	14.3	28.1
Tishomingo					
Total	91.7	6.1	2.2	13.5	27.5
Negro	76.5	15.1	8.4	37.9	55.8
Non-Negro	92.3	5.8	2.0	12.4	25.8
Tunica					
Total	71.7	10.5	17.8	27.0	64.6
Negro	61.3	12.9	25.8	51.8	72.1
Non-Negro	91.5	6.0	2.6	7.5	29.3
Union					
Total	89.7	6.8	3.5	14.9	36.9
Negro	73.6	12.3	14.2	39.3	61.2
Non-Negro	92.0	6.1	1.9	11.8	29.0
Walthall					
Total	85.4	9.3	5.2	24.6	50.4
Negro	68.8	17.0	14.2	47.0	68.9
Non-Negro	93.0	5.9	1.2	12.6	23.7
Warren					
Total	84.8	8.1	7.1	22.6	44.3
Negro	73.4	11.6	15.1	44.3	60.4
Non-Negro	92.2	5.8	2.0	12.8	22.5
Washington					
Total	79.1	10.2	10.8	28.9	55.6
Negro	66.5	13.5	20.0	50.4	68.9
Non-Negro	91.5	6.9	1.7	12.7	25.8
Wayne					
Total	83.7	10.1	6.2	28.0	45.4
Negro	69.8	15.3	15.0	49.0	65.9
Non-Negro	88.8	8.2	3.0	19.3	29.8

Table 32.-(continued)

Area and Race	Percent of Housing Units with Stated Number Of Persons Per Room			Percent of Population In Homes With More Than 1.01 Persons Per Room	
	Less Than 1.01	1.01-1.50	More Than 1.51	Owners	Renters
Webster					
Total	88.3	7.2	4.5	16.6	45.6
Negro	66.4	14.3	19.3	43.6	70.7
Non-Negro	93.0	5.7	1.3	12.5	24.2
Wilkinson					
Total	77.1	11.6	11.3	32.7	42.8
Negro	67.6	15.1	17.3	46.4	63.8
Non-Negro	91.7	6.4	2.0	14.9	24.4
Winston					
Total	86.2	8.5	5.2	23.1	45.2
Negro	69.6	16.3	14.1	48.9	63.3
Non-Negro	93.8	5.0	1.2	10.0	23.7
Yalobusha					
Total	85.3	8.0	6.8	22.4	50.1
Negro	64.9	16.3	18.8	49.2	70.9
Non-Negro	94.2	4.4	1.5	10.7	21.7
Yazoo					
Total	80.0	9.7	10.4	24.1	57.4
Negro	66.7	13.2	20.2	45.3	68.6
Non-Negro	92.0	6.5	1.5	12.8	25.5

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1 (Washington, D.C.: USGPO), Tables 29, 30 and 36; Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), First Count, Tabs 30, 50, and 29.

TABLE 33.-SIZE OF OCCUPIED UNITS AND AVAILABILITY OF TELEPHONE, BY RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of All Occupied Units With				
	3 Rooms or Less		6 Rooms or Less		
	All Units	Renter Occupied	All Units	Renter Occupied	Phone Available
United States					
Total	15.3	34.3	38.8	15.6	87.3
Negro	22.2	34.0	28.4	14.0	69.8
Non-Negro	14.6	34.4	40.0	15.8	89.2
Mississippi					
Total	15.6	34.3	34.0	14.6	67.4
Negro	28.7	45.7	21.6	8.9	43.1
Non-Negro	9.7	24.3	39.5	19.5	78.3
Adams					
Total	19.9	41.8	32.1	10.9	76.4
Negro	33.1	52.7	20.3	6.2	61.8
Non-Negro	9.4	25.3	41.4	18.0	87.8
Alcorn					
Total	9.7	21.4	32.7	15.8	68.0
Negro	16.2	26.5	27.1	14.7	55.3
Non-Negro	9.0	20.5	33.3	16.0	69.1
Amite					
Total	11.1	24.1	39.5	23.3	55.4
Negro	16.6	29.1	33.6	17.0	27.1
Non-Negro	7.5	15.8	43.4	33.7	74.1
Attala					
Total	11.7	25.8	33.9	16.5	70.2
Negro	18.9	30.8	24.7	11.7	48.2
Non-Negro	8.2	20.7	38.3	21.2	80.3
Benton					
Total	12.7	25.8	27.4	14.4	50.3
Negro	20.8	30.6	17.0	8.3	23.7
Non-Negro	9.4	20.8	31.6	20.8	60.9
Bolivar					
Total	24.3	40.5	28.4	13.2	53.2
Negro	36.4	49.2	15.1	7.3	30.8
Non-Negro	9.7	21.7	44.5	26.0	82.8
Calhoun					
Total	8.9	21.5	36.2	17.8	72.3
Negro	23.5	32.6	16.2	8.7	43.6
Non-Negro	5.8	14.4	40.6	23.6	77.0
Carroll					
Total	12.8	25.2	33.7	15.7	54.0
Negro	20.4	31.2	23.7	11.6	28.9
Non-Negro	7.5	15.3	40.7	22.4	69.6
Chickasaw					
Total	12.4	24.9	31.6	14.5	60.2
Negro	21.6	32.2	20.3	8.6	37.0
Non-Negro	8.8	19.6	36.0	18.7	72.6
Choctaw					
Total	8.0	17.7	40.5	25.8	68.5
Negro	13.2	22.0	29.8	17.3	45.8
Non-Negro	6.6	15.7	43.4	29.9	74.7
Claiborne					
Total	24.0	45.8	29.6	11.8	58.9
Negro	30.2	51.4	21.5	7.4	45.9
Non-Negro	11.8	27.9	45.3	25.8	83.8
Clarke					
Total	10.2	23.8	39.5	23.4	67.0
Negro	16.0	32.0	32.1	13.7	48.6
Non-Negro	7.7	18.0	42.6	30.3	74.0
Clay					
Total	14.2	29.7	32.9	13.0	68.4
Negro	23.1	37.9	21.8	8.0	43.6
Non-Negro	8.0	20.7	40.6	18.5	84.0
Coahoma					
Total	29.3	45.9	27.3	11.7	58.9
Negro	43.2	52.7	14.2	7.8	38.2
Non-Negro	10.0	25.4	45.5	23.3	86.3
Copiah					
Total	11.7	27.2	38.0	19.1	62.5
Negro	18.4	33.5	29.4	15.3	36.7
Non-Negro	6.8	18.1	44.3	24.5	80.7
Covington					
Total	9.1	20.0	39.9	24.2	62.5
Negro	12.4	25.6	33.8	21.4	34.3
Non-Negro	7.9	17.1	41.9	25.6	71.5
DeSoto					
Total	14.0	32.8	38.2	12.5	67.6
Negro	32.4	42.1	14.2	5.8	29.1
Non-Negro	6.7	19.4	47.7	22.1	83.4
Forrest					
Total	16.4	39.4	38.4	16.6	77.5
Negro	23.7	50.1	31.7	13.4	56.7
Non-Negro	14.4	36.0	40.4	17.6	83.3
Franklin					
Total	14.0	31.5	33.6	19.0	59.9
Negro	27.3	45.3	22.3	8.8	34.7
Non-Negro	7.6	17.4	39.1	29.6	69.9
George					
Total	11.1	24.7	38.2	26.3	59.3
Negro	17.9	38.1	28.9	14.3	35.7
Non-Negro	10.4	23.1	39.2	27.7	63.0
Greene					
Total	11.9	23.0	36.5	19.0	32.4
Negro	15.9	35.4	40.8	14.6	20.1
Non-Negro	10.9	19.4	35.5	20.3	33.3
Grenada					
Total	18.5	39.6	32.1	12.1	67.2
Negro	32.9	49.1	17.8	7.5	44.4
Non-Negro	10.0	26.2	40.5	18.7	80.6
Hancock					
Total	14.3	30.5	35.2	16.7	67.5
Negro	16.4	34.6	34.0	14.4	53.0
Non-Negro	14.1	29.8	35.3	17.1	69.8
Harrison					
Total	15.8	31.3	33.3	14.0	76.9
Negro	25.3	40.2	24.2	9.7	56.1
Non-Negro	14.1	29.1	35.0	15.1	81.1

Table 33.-(continued)

Area and Race	Percent of All Occupied Units With 3 Rooms or Less: All Units	3 Rooms or Less: Renter Occupied	6 Rooms or Less: All Units	6 Rooms or Less: Renter Occupied	Phone Available
Hinds					
Total	17.7	44.2	37.7	11.2	81.5
Negro	32.4	55.2	21.9	7.0	60.2
Non-Negro	10.6	33.9	45.2	15.1	91.7
Holmes					
Total	17.8	32.1	31.9	14.6	55.4
Negro	23.7	36.8	22.1	8.9	38.0
Non-Negro	8.6	18.8	47.3	30.8	81.7
Humphreys					
Total	25.3	40.5	28.9	14.2	56.7
Negro	38.0	48.6	15.7	8.1	40.1
Non-Negro	8.6	17.9	46.2	31.5	79.7
Issaquena					
Total	23.8	31.9	25.6	15.1	47.5
Negro	35.6	39.4	13.0	9.1	25.6
Non-Negro	9.5	13.2	40.9	30.2	71.7
Itawamba					
Total	7.6	17.1	31.5	15.4	68.9
Negro	17.6	22.4	20.3	9.0	50.6
Non-Negro	7.1	16.7	32.1	15.9	68.1
Jackson					
Total	12.1	30.9	33.7	13.1	76.6
Negro	21.7	43.1	26.1	9.6	51.3
Non-Negro	10.6	27.6	34.9	14.1	79.3
Jasper					
Total	8.9	18.7	44.4	28.1	56.5
Negro	11.2	22.0	42.1	22.1	31.6
Non-Negro	7.4	14.8	45.8	35.2	72.3
Jefferson					
Total	18.0	36.0	33.2	13.4	44.0
Negro	23.2	41.1	26.4	10.7	30.3
Non-Negro	7.3	16.3	47.0	23.8	72.2
Jefferson Davis					
Total	9.8	25.7	41.3	21.7	57.8
Negro	15.7	33.6	34.8	16.4	31.7
Non-Negro	5.5	16.8	46.2	27.6	75.8
Jones					
Total	11.8	31.1	40.2	19.9	72.5
Negro	28.4	50.5	30.6	12.9	51.5
Non-Negro	7.4	19.6	42.7	24.0	78.3
Kemper					
Total	12.9	27.2	35.9	17.2	53.6
Negro	19.8	30.9	25.3	12.4	32.6
Non-Negro	7.4	19.9	44.3	26.8	73.2
Lafayette					
Total	18.0	37.1	34.4	14.0	72.6
Negro	19.2	36.2	27.0	11.7	41.3
Non-Negro	17.7	37.3	36.6	14.7	80.4
Lamar					
Total	10.4	24.0	37.0	20.7	67.1
Negro	18.3	35.6	27.6	14.4	39.7
Non-Negro	9.4	22.0	38.3	21.7	69.0
Lauderdale					
Total	15.4	33.9	34.3	14.9	74.4
Negro	27.6	44.8	21.9	9.0	51.2
Non-Negro	10.9	26.9	38.8	18.6	82.8
Lawrence					
Total	9.2	21.7	39.3	23.0	57.9
Negro	14.0	27.0	38.0	22.1	32.5
Non-Negro	7.4	18.1	39.8	23.6	70.9
Leake					
Total	8.5	21.1	33.6	18.1	55.8
Negro	11.8	24.2	31.2	15.9	36.2
Non-Negro	7.3	19.3	34.5	19.4	65.3
Lee					
Total	11.7	26.9	31.9	12.2	74.0
Negro	22.6	35.3	17.6	7.6	49.7
Non-Negro	9.4	23.4	34.9	14.2	78.7
Leflore					
Total	32.8	52.0	25.9	10.2	60.4
Negro	54.8	63.6	10.0	4.9	40.7
Non-Negro	10.0	24.0	42.4	23.0	84.8
Lincoln					
Total	11.6	38.4	27.4	20.7	70.1
Negro	18.1	32.0	33.6	16.2	50.3
Non-Negro	9.3	40.6	23.5	23.6	78.0
Lowndes					
Total	17.2	32.6	30.9	13.9	74.7
Negro	37.0	55.6	15.1	6.0	44.3
Non-Negro	9.1	18.9	37.3	18.7	85.6
Madison					
Total	18.9	40.4	33.1	13.4	57.6
Negro	29.8	49.1	22.4	8.1	36.6
Non-Negro	6.7	17.6	45.2	27.4	83.1
Marion					
Total	10.5	27.6	38.7	20.3	67.9
Negro	13.9	32.0	38.4	19.8	45.0
Non-Negro	9.3	25.3	38.8	20.6	75.2
Marshall					
Total	19.8	37.2	27.5	10.7	53.7
Negro	29.2	42.7	18.1	7.1	38.4
Non-Negro	10.0	23.4	37.2	19.7	67.8
Monroe					
Total	11.1	24.6	34.8	17.0	69.6
Negro	21.6	33.5	21.7	11.3	45.2
Non-Negro	7.6	19.2	39.2	20.5	75.7
Montgomery					
Total	12.6	27.9	35.6	16.4	64.2
Negro	19.7	33.3	26.0	9.7	46.2
Non-Negro	8.5	22.2	41.1	23.4	76.7
Neshoba					
Total	10.1	24.7	35.4	18.6	62.0
Negro	18.6	33.2	27.5	12.7	46.2
Non-Negro	8.6	21.6	36.9	20.7	67.1

Table 33.-(continued)

Area and Race	Percent of All Occupied Units With 3 Rooms or Less		Percent of All Occupied Units With 6 Rooms or Less		
	All Units	Renter Occupied	All Units	Renter Occupied	Phone Available
Newton					
Total	9.5	23.4	40.2	21.8	62.9
Negro	14.8	26.0	30.4	16.4	39.2
Non-Negro	7.8	22.0	43.2	24.7	74.3
Noxubee					
Total	20.7	40.0	33.1	14.4	50.3
Negro	31.3	46.9	16.4	7.4	27.5
Non-Negro	7.4	19.4	54.3	35.8	82.3
Oktibbeha					
Total	18.1	34.5	31.8	12.0	68.5
Negro	24.5	43.3	20.8	8.3	34.0
Non-Negro	15.3	30.6	36.5	13.6	84.0
Panola					
Total	17.2	31.1	30.1	12.9	50.0
Negro	28.1	37.8	15.5	7.4	23.5
Non-Negro	9.5	20.7	40.4	21.4	70.2
Pearl River					
Total	9.9	24.5	39.0	21.3	72.0
Negro	20.5	41.2	29.4	12.7	52.4
Non-Negro	7.9	19.7	40.8	23.8	74.4
Perry					
Total	12.6	26.9	37.7	19.8	56.8
Negro	23.6	40.1	29.3	11.8	31.4
Non-Negro	9.5	21.5	40.1	23.1	60.9
Pike					
Total	9.9	23.9	40.5	19.6	71.7
Negro	13.9	27.1	33.4	16.4	52.7
Non-Negro	7.6	21.1	44.5	22.5	83.4
Pontotoc					
Total	8.6	17.8	30.4	16.1	68.7
Negro	16.1	28.0	20.1	8.5	46.7
Non-Negro	7.4	15.0	32.0	18.2	72.5
Prentiss					
Total	10.7	24.5	28.3	14.0	58.7
Negro	18.6	32.9	19.6	11.4	42.0
Non-Negro	9.9	23.3	29.2	14.4	60.9
Quitman					
Total	19.6	31.7	31.6	16.4	46.4
Negro	30.8	40.5	16.6	8.0	24.5
Non-Negro	8.6	15.9	46.3	31.6	69.9
Rankin					
Total	8.8	21.2	32.3	17.6	75.2
Negro	13.3	26.6	31.2	15.8	46.0
Non-Negro	7.7	18.8	32.6	18.5	81.5
Scott					
Total	9.0	18.6	37.0	19.2	59.0
Negro	12.5	22.0	30.4	16.5	39.1
Non-Negro	7.7	16.7	39.5	20.6	62.9
Sharkey					
Total	24.8	35.3	28.4	16.9	46.3
Negro	38.6	44.1	13.0	8.9	22.7
Non-Negro	8.0	13.3	47.2	37.0	76.6
Simpson					
Total	9.8	19.6	34.8	21.5	62.2
Negro	16.5	29.2	30.6	17.8	35.7
Non-Negro	7.6	14.6	36.2	23.5	69.6
Smith					
Total	7.0	16.8	37.6	23.0	53.1
Negro	13.7	23.3	29.5	15.0	19.2
Non-Negro	5.9	13.5	39.0	27.1	61.6
Stone					
Total	9.2	20.1	40.0	25.2	68.4
Negro	15.1	36.5	28.8	14.0	38.9
Non-Negro	7.7	15.0	42.7	28.7	76.1
Sunflower					
Total	23.7	38.5	28.1	14.4	52.7
Negro	37.2	46.8	13.5	8.8	30.1
Non-Negro	7.5	16.0	45.5	29.6	82.7
Tallahatchie					
Total	22.9	37.6	29.3	12.6	40.4
Negro	35.8	43.4	14.3	7.8	16.3
Non-Negro	9.5	21.5	44.9	25.9	70.0
Tate					
Total	18.4	35.2	28.5	10.3	51.8
Negro	31.9	43.3	15.4	6.5	26.1
Non-Negro	10.4	24.3	36.6	15.5	69.3
Tippah					
Total	9.6	20.7	33.1	17.6	69.4
Negro	16.8	31.0	23.4	12.8	54.4
Non-Negro	8.5	18.0	34.5	18.8	69.5
Tishomingo					
Total	8.3	18.6	31.4	17.9	59.9
Negro	11.2	33.3	25.1	15.7	57.0
Non-Negro	8.1	17.9	31.6	18.0	61.5
Tunica					
Total	30.3	39.9	22.7	11.0	34.0
Negro	40.8	46.6	10.8	5.9	14.6
Non-Negro	10.2	15.4	45.4	29.9	71.9
Union					
Total	10.5	22.5	31.2	15.8	65.1
Negro	22.8	36.6	17.3	6.8	45.2
Non-Negro	8.7	18.9	33.3	18.2	68.1
Walthall					
Total	9.0	21.3	41.6	24.6	60.2
Negro	11.4	22.1	38.9	18.1	34.8
Non-Negro	7.9	20.5	42.8	30.8	73.9
Warren					
Total	23.2	46.6	29.9	10.7	76.0
Negro	41.8	62.9	15.2	5.1	57.1
Non-Negro	11.1	27.3	39.4	17.4	86.3
Washington					
Total	24.3	43.8	27.2	10.9	65.4
Negro	40.1	56.4	13.2	6.1	47.3
Non-Negro	8.7	21.6	41.0	19.3	84.8

Table 33.-(continued)

Area and Race	Percent of All Occupied Units With				
	3 Rooms or Less		6 Rooms or Less		
	All Units	Renter Occupied	All Units	Renter Occupied	Phone Available
Wayne					
Total	12.3	24.1	33.8	20.7	56.8
Negro	16.1	30.9	30.6	19.7	36.6
Non-Negro	10.9	20.4	35.0	21.1	66.3
Webster					
Total	9.5	20.6	41.0	23.1	66.4
Negro	23.1	30.8	23.5	14.7	35.2
Non-Negro	6.7	14.8	44.7	27.8	71.3
Wilkinson					
Total	21.4	39.0	31.6	13.6	51.3
Negro	29.3	44.5	23.7	9.0	36.6
Non-Negro	9.3	20.2	43.7	29.4	76.7
Winston					
Total	8.5	20.8	37.9	19.1	68.6
Negro	13.3	25.1	27.5	16.3	46.0
Non-Negro	6.3	17.4	42.7	21.4	77.2
Yalobusha					
Total	12.1	24.4	33.3	16.3	55.6
Negro	18.5	26.8	21.1	10.4	21.8
Non-Negro	9.3	22.5	38.6	21.2	70.5
Yazoo					
Total	21.0	37.8	30.9	13.2	60.0
Negro	35.7	47.4	44.4	6.8	42.3
Non-Negro	7.7	17.2	46.0	27.1	81.1

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1 (Washington, D.C.: USGPO), Tables 29, 30 and 36; Summary Tape of 1970, U.S. Census of Population (Mississippi State, Mississippi: Summary Tape Processing Center), Second Count, Tabs 42 and 45.

TABLE 34.-VALUE OF OWNER-OCCUPIED HOUSING(1) BY RURAL/URBAN RESIDENCE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Total	Urban	Rural
United States						
Total	6	3	14	38	42	26
Negro	16	11	40	14	15	6
Non-Negro	5	3	1	40	44	27
Mississippi						
Total	16	9	25	16	20	11
Negro	37	28	47	3	4	3
Non-Negro	9	4	17	20	25	14
Adams						
Total	12	11	13	19	20	17
Negro	28	26	30	4	3	5
Non-Negro	4	2	5	26	28	23
Alcorn						
Total	18	12	25	12	16	7
Negro	29	25	44	3	3	4
Non-Negro	17	11	24	13	8	7
Amite						
Total	30	--	30	7	--	7
Negro	49	--	49	2	--	2
Non-Negro	18	--	18	10	--	10
Attala						
Total	24	18	34	10	13	4
Negro	42	38	48	1	2	1
Non-Negro	18	12	29	13	7	5
Benton						
Total	22	--	22	6	--	6
Negro	30	--	30	2	--	2
Non-Negro	21	--	21	6	--	6
Bolivar						
Total	24	17	34	14	17	10
Negro	46	41	50	2	2	3
Non-Negro	6	3	12	24	26	19
Calhoun						
Total	24	--	24	8	--	8
Negro	41	--	41	1	--	1
Non-Negro	21	--	21	9	--	9
Carroll						
Total	25	--	25	5	--	5
Negro	45	--	45	0	--	0
Non-Negro	16	--	16	7	--	7
Chickasaw						
Total	21	16	26	9	11	6
Negro	48	51	44	2	1	4
Non-Negro	13	6	22	11	14	7
Choctaw						
Total	30	--	30	7	--	7
Negro	64	--	64	3	--	3
Non-Negro	22	--	22	8	--	8
Claiborne						
Total	28	16	34	10	14	7
Negro	37	27	41	3	2	3
Non-Negro	10	3	17	23	29	17
Clarke						
Total	30	12	37	8	19	4
Negro	53	35	58	2	2	2
Non-Negro	21	4	28	11	24	5
Clay						
Total	17	13	23	13	15	9
Negro	37	33	42	5	4	7
Non-Negro	6	4	11	17	20	11

(1) For all housing units (including mobile homes) for which value was indicated.

Table 34.-(continued)

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Total	Urban	Rural
Coahoma						
Total	18	12	36	15	15	16
Negro	41	30	69	2	2	1
Non-Negro	3	2	8	23	22	28
Copiah						
Total	31	23	41	8	10	5
Negro	56	48	64	1	2	1
Non-Negro	14	7	23	13	16	9
Covington						
Total	26	--	26	7	--	7
Negro	52	--	52	2	--	2
Non-Negro	17	--	17	8	--	8
De Soto						
Total	5	0	9	21	17	24
Negro	24	0	24	7	0	7
Non-Negro	2	0	5	22	17	29
Forrest						
Total	16	13	29	18	20	9
Negro	43	40	57	3	2	3
Non-Negro	7	5	20	22	25	11
Franklin						
Total	41	--	41	6	--	6
Negro	58	--	58	2	--	2
Non-Negro	32	--	32	8	--	8
George						
Total	28	--	28	10	--	10
Negro	57	--	57	3	--	3
Non-Negro	24	--	24	11	--	11
Greene						
Total	39	--	39	4	--	4
Negro	52	--	52	1	--	1
Non-Negro	36	--	36	5	--	5
Grenada						
Total	14	8	22	13	15	10
Negro	37	29	46	3	2	4
Non-Negro	7	2	14	17	19	12
Hancock						
Total	12	7	20	19	22	14
Negro	26	22	35	5	5	4
Non-Negro	9	4	18	21	25	15
Harrison						
Total	6	6	8	26	25	31
Negro	21	20	33	5	5	4
Non-Negro	4	3	7	29	29	32
Hinds						
Total	4	3	19	25	26	19
Negro	15	9	44	5	6	3
Non-Negro	1	1	6	31	31	28
Holmes						
Total	35	29	39	6	8	4
Negro	51	51	51	2	2	2
Non-Negro	16	14	18	10	12	8
Humphreys						
Total	27	22	29	14	17	12
Negro	51	49	51	3	2	3
Non-Negro	10	4	14	21	27	18
Issaquena						
Total	40	--	40	8	--	8
Negro	61	--	61	3	--	3
Non-Negro	16	--	16	15	--	15
Itawamba						
Total	20	12	23	8	16	6
Negro	33	32	34	1	0	1
Non-Negro	19	9	23	9	18	6

Table 34.-(continued)

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Rural	Urban	Rural
Jackson						
Total	8	5	16	20	22	15
Negro	18	16	40	6	6	3
Non-Negro	6	3	15	22	25	16
Jasper						
Total	31	--	31	10	--	10
Negro	51	--	51	6	--	6
Non-Negro	19	--	19	13	--	13
Jefferson						
Total	32	--	32	4	--	4
Negro	39	--	39	3	--	3
Non-Negro	15	--	15	7	--	7
Jefferson Davis						
Total	25	--	25	12	--	12
Negro	47	--	47	3	--	3
Non-Negro	12	--	12	17	--	17
Jones						
Total	14	10	21	14	18	7
Negro	29	27	37	3	3	2
Non-Negro	11	5	19	17	23	8
Kemper						
Total	28	--	28	6	--	6
Negro	53	--	53	4	--	4
Non-Negro	17	--	17	7	--	7
Lafayette						
Total	16	6	30	29	43	8
Negro	37	31	41	4	6	3
Non-Negro	9	1	24	37	51	10
Lamar						
Total	24	11	24	12	33	12
Negro	59	0	59	1	0	1
Non-Negro	17	11	17	14	33	14
Lauderdale						
Total	14	12	23	16	17	10
Negro	38	34	55	4	4	3
Non-Negro	8	6	16	19	21	12
Lawrence						
Total	20	--	20	13	--	13
Negro	41	--	41	3	--	3
Non-Negro	13	--	13	16	--	16
Leake						
Total	30	14	39	6	12	3
Negro	53	54	53	3	1	3
Non-Negro	22	6	33	8	14	3
Lee						
Total	10	3	18	23	32	12
Negro	29	12	37	6	10	3
Non-Negro	7	2	14	25	34	14
Leflore						
Total	9	6	16	22	24	18
Negro	29	25	33	5	3	8
Non-Negro	3	1	7	28	29	23
Lincoln						
Total	19	15	26	16	19	11
Negro	42	35	55	4	4	3
Non-Negro	10	6	16	21	26	14
Lowndes						
Total	13	12	15	20	19	23
Negro	33	31	41	5	4	6
Non-Negro	6	4	9	25	24	27
Madison						
Total	16	11	21	14	14	14
Negro	32	22	42	4	4	4
Non-Negro	6	5	8	21	20	21

Table 34.-(continued)

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Total	Urban	Rural
Marion						
Total	25	14	36	13	18	8
Negro	54	47	59	3	3	2
Non-Negro	15	5	27	17	22	10
Marshall						
Total	17	9	21	12	22	7
Negro	26	21	30	7	11	4
Non-Negro	11	3	16	16	28	8
Monroe						
Total	18	14	23	10	14	6
Negro	41	43	38	3	2	5
Non-Negro	12	6	20	12	18	6
Montgomery						
Total	27	19	36	9	12	4
Negro	54	53	55	2	3	1
Non-Negro	14	7	24	12	16	6
Neshoba						
Total	19	13	27	10	14	6
Negro	41	42	38	2	2	5
Non-Negro	15	5	27	12	17	6
Newton						
Total	27	20	29	8	13	6
Negro	54	45	59	1	1	1
Non-Negro	19	9	22	10	18	8
Noxubee						
Total	34	24	41	9	14	7
Negro	58	64	56	2	0	2
Non-Negro	14	6	22	16	20	12
Oktibbeha						
Total	16	7	32	26	34	12
Negro	39	30	47	3	5	2
Non-Negro	7	2	20	35	41	20
Panola						
Total	21	9	26	13	17	12
Negro	48	45	48	2	0	2
Non-Negro	9	4	12	19	20	18
Pearl River						
Total	16	15	17	16	20	13
Negro	35	34	39	2	1	4
Non-Negro	12	8	15	19	27	14
Perry						
Total	36	--	36	5	--	5
Negro	63	--	63	1	--	1
Non-Negro	27	--	27	6	--	6
Pike						
Total	22	13	31	11	14	7
Negro	44	34	48	3	2	3
Non-Negro	11	7	17	14	18	10
Pontotoc						
Total	23	11	30	8	14	4
Negro	43	45	42	4	4	3
Non-Negro	20	6	28	9	16	4
Prentiss						
Total	20	11	27	11	17	6
Negro	39	37	41	2	2	1
Non-Negro	18	8	25	12	18	6
Quitman						
Total	30	26	32	13	14	12
Negro	58	46	66	2	2	2
Non-Negro	11	4	13	20	28	17
Rankin						
Total	10	3	16	10	11	10
Negro	39	45	39	3	2	3
Non-Negro	5	1	9	12	12	12
Scott						
Total	26	20	34	9	13	4
Negro	55	52	59	2	2	2
Non-Negro	16	7	27	11	17	4

Table 34.-(continued)

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Total	Urban	Rural
Sharkey						
Total	17	--	17	18	--	18
Negro	40	--	40	2	--	2
Non-Negro	7	--	7	25	--	25
Simpson						
Total	27	22	29	9	14	7
Negro	52	58	51	3	5	2
Non-Negro	21	16	23	11	16	9
Smith						
Total	24	--	24	11	--	11
Negro	31	--	31	2	--	2
Non-Negro	23	--	23	13	--	13
Stone						
Total	25	16	37	10	15	4
Negro	52	49	55	2	2	1
Non-Negro	16	8	29	13	17	6
Sunflower						
Total	19	11	30	14	15	12
Negro	38	24	54	3	3	2
Non-Negro	7	3	13	21	23	19
Tallahatchie						
Total	27	27	27	11	12	11
Negro	55	58	53	1	1	2
Non-Negro	15	7	18	16	19	14
Tate						
Total	14	5	19	15	24	10
Negro	25	17	29	5	6	4
Non-Negro	9	2	14	20	30	13
Tippah						
Total	25	14	31	8	10	6
Negro	45	45	45	3	1	4
Non-Negro	22	0	29	8	12	6
Tishomingo						
Total	26	--	26	6	--	6
Negro	33	--	33	2	--	2
Non-Negro	25	--	25	6	--	6
Tunica						
Total	22	--	22	19	--	19
Negro	46	--	46	0	--	0
Non-Negro	6	--	6	31	--	31
Union						
Total	15	9	22	13	18	7
Negro	26	26	23	4	3	9
Non-Negro	14	5	22	14	22	7
Walthall						
Total	20	--	20	11	--	11
Negro	36	--	36	2	--	2
Non-Negro	15	--	15	14	--	14
Warren						
Total	13	11	15	20	15	28
Negro	31	26	46	4	3	6
Non-Negro	4	2	6	28	23	33
Washington						
Total	15	14	20	16	14	22
Negro	32	30	45	3	3	3
Non-Negro	3	2	6	25	23	33
Wayne						
Total	36	25	42	9	12	8
Negro	61	51	67	2	2	2
Non-Negro	23	10	30	13	18	10
Webster						
Total	24	--	24	7	--	7
Negro	51	--	51	2	--	2
Non-Negro	19	--	19	8	--	8
Wilkinson						
Total	35	--	35	10	--	10
Negro	49	--	49	4	--	4
Non-Negro	18	--	18	18	--	18

Table 34.-(continued)

Area and Race	Percent of Housing Units Valued At					
	Less Than $5,000			More Than $20,000		
	Total	Urban	Rural	Total	Urban	Rural
Winston						
Total	20	14	26	14	18	8
Negro	42	41	44	2	2	2
Non-Negro	10	4	19	19	25	10
Yalobusha						
Total	30	25	33	6	7	6
Negro	60	49	68	1	1	1
Non-Negro	19	17	21	8	8	8
Yazoo						
Total	23	26	17	14	9	21
Negro	47	49	38	1	1	2
Non-Negro	9	4	13	21	17	25

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1 (Washington, D. C.: USGPO), Tables 31 and 35; Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Second Count, Tab 46.

TABLE 35.-RENTER-OCCUPIED UNITS RENTING FOR LESS AND MORE THAN SPECIFIED AMOUNTS, BY RURAL/URBAN RESIDENCE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
United States						
Total	13	10	41	40	43	35
Negro	20	15	83	27	26	3
Non-Negro	12	9	37	43	47	17
Mississippi						
Total	51	40	74	10	13	4
Negro	76	66	93	1	1	1
Non-Negro	33	21	58	17	23	6
Adams						
Total	58	60	51	6	5	8
Negro	80	86	64	1	0	1
Non-Negro	24	20	34	13	12	17
Alcorn						
Total	58	49	77	3	4	1
Negro	81	79	94	0	0	0
Non-Negro	53	41	75	4	5	2
Amite						
Total	87	--(2)	87	1	--	1
Negro	95	--	95	2	--	2
Non-Negro	74	--	74	0	--	0
Attala						
Total	75	65	90	1	2	0
Negro	97	96	97	0	0	1
Non-Negro	54	40	81	2	3	0
Benton						
Total	80	--	80	1	--	1
Negro	93	--	93	2	--	2
Non-Negro	71	--	71	1	--	1
Bolivar						
Total	73	62	87	4	6	1
Negro	95	94	95	0	0	0
Non-Negro	34	20	65	10	14	3
Calhoun						
Total	78	--	78	1	--	1
Negro	97	--	97	1	--	1
Non-Negro	68	--	68	1	--	1
Carroll						
Total	88	--	88	1	--	1
Negro	95	--	95	0	--	0
Non-Negro	77	--	77	2	--	2
Chickasaw						
Total	67	55	84	1	2	0
Negro	92	90	94	1	2	1
Non-Negro	54	38	79	2	2	0
Choctaw						
Total	77	--	77	0	--	0
Negro	94	--	94	0	--	0
Non-Negro	68	--	68	1	--	1
Claiborne						
Total	85	84	87	0	1	0
Negro	95	96	93	0	0	0
Non-Negro	56	50	66	2	2	0
Clarke						
Total	76	57	85	1	2	1
Negro	93	93	92	0	0	0
Non-Negro	66	38	79	2	3	1
Clay						
Total	56	52	68	3	3	5
Negro	85	83	89	1	0	4
Non-Negro	31	28	43	5	4	5

(1) Includes housing for which no rent is paid.

(2) Area contains no housing units in this category.

Table 35.-(continued)

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
Coahoma						
Total	70	62	92	4	6	0
Negro	89	85	98	0	0	0
Non-Negro	27	18	68	14	16	2
Copiah						
Total	75	68	85	1	1	1
Negro	93	91	94	1	0	1
Non-Negro	53	44	69	2	2	2
Covington						
Total	73	--	73	2	--	2
Negro	94	--	94	0	--	0
Non-Negro	64	--	64	3	--	3
De Soto						
Total	61	12	67	8	42	4
Negro	93	83	93	0	0	0
Non-Negro	32	9	37	14	43	7
Forrest						
Total	34	31	60	15	16	6
Negro	80	80	82	1	1	3
Non-Negro	20	17	50	19	20	8
Franklin						
Total	81	--	81	0	--	0
Negro	95	--	95	0	--	0
Non-Negro	63	--	63	0	--	0
George						
Total	59	--	59	3	--	3
Negro	79	--	79	0	--	0
Non-Negro	56	--	56	4	--	4
Greene						
Total	74	--	74	1	--	1
Negro	90	--	90	2	--	2
Non-Negro	70	--	70	1	--	1
Grenada						
Total	60	57	66	3	4	2
Negro	83	81	89	1	1	1
Non-Negro	30	22	44	7	8	3
Hancock						
Total	32	28	44	18	24	2
Negro	66	68	62	0	0	0
Non-Negro	26	20	42	21	28	3
Harrison						
Total	28	28	29	25	25	25
Negro	45	44	68	3	3	0
Non-Negro	24	24	25	31	31	28
Hinds						
Total	18	13	70	19	20	5
Negro	26	20	93	1	0	1
Non-Negro	10	7	44	36	38	9
Holmes						
Total	82	71	88	1	3	1
Negro	96	96	96	0	0	0
Non-Negro	50	36	65	4	7	1
Humphreys						
Total	84	76	91	1	2	1
Negro	97	96	98	0	1	0
Non-Negro	51	25	72	3	6	2
Issaquena						
Total	96	--	96	0	--	0
Negro	99	--	99	0	--	0
Non-Negro	87	--	87	0	--	0
Itawamba						
Total	72	53	83	3	5	2
Negro	96	86	100	0	0	0
Non-Negro	70	51	82	4	6	3
Jackson						
Total	23	20	40	26	29	13
Negro	39	36	85	2	2	0
Non-Negro	19	15	37	33	37	14

Table 35.-(continued)

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
Jasper						
Total	77	--	77	2	--	2
Negro	96	--	96	2	--	2
Non-Negro	57	--	57	3	--	3
Jefferson						
Total	87	--	87	1	--	1
Negro	94	--	94	1	--	1
Non-Negro	64	--	64	3	--	3
Jefferson Davis						
Total	70	--	70	5	--	5
Negro	92	--	92	2	--	2
Non-Negro	50	--	50	7	--	7
Jones						
Total	52	48	69	4	5	2
Negro	70	68	92	0	0	1
Non-Negro	41	31	65	7	8	2
Kemper						
Total	90	--	90	1	--	1
Negro	96	--	96	1	--	1
Non-Negro	82	--	82	2	--	2
Lafeyette						
Total	28	20	58	26	28	17
Negro	89	87	94	1	0	3
Non-Negro	13	8	41	31	33	24
Lamar						
Total	54	21	56	6	29	5
Negro	84	0	84	0	0	0
Non-Negro	48	21	50	7	29	6
Lauderdale						
Total	50	47	65	13	13	15
Negro	76	74	93	0	0	1
Non-Negro	34	29	55	21	21	19
Lawrence						
Total	71	--	71	4	--	4
Negro	90	--	90	3	--	3
Non-Negro	58	--	58	5	--	5
Leake						
Total	76	56	91	3	5	1
Negro	94	92	96	0	0	0
Non-Negro	68	47	88	4	7	1
Lee						
Total	46	33	68	9	13	3
Negro	71	60	92	1	1	1
Non-Negro	36	21	59	13	18	4
Leflore						
Total	59	51	81	3	4	2
Negro	77	71	92	0	0	0
Non-Negro	23	14	53	9	10	6
Lincoln						
Total	55	46	79	5	6	1
Negro	79	77	87	0	0	0
Non-Negro	38	26	73	8	10	2
Lowndes						
Total	53	54	50	13	14	10
Negro	83	82	90	1	1	2
Non-Negro	36	39	26	19	20	14
Madison						
Total	70	66	74	5	3	8
Negro	84	84	83	4	0	9
Non-Negro	38	29	52	8	9	6
Marion						
Total	64	52	83	3	4	1
Negro	93	90	96	0	0	0
Non-Negro	49	34	76	4	6	1
Marshall						
Total	73	56	87	2	3	1
Negro	87	74	96	1	1	1
Non-Negro	49	30	68	5	8	2

Table 35.-(continued)

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
Monroe						
Total	61	52	75	2	2	1
Negro	90	90	90	0	0	0
Non-Negro	46	30	69	3	4	2
Montgomery						
Total	65	53	85	2	3	0
Negro	88	83	93	0	0	0
Non-Negro	43	29	72	3	5	0
Neshoba						
Total	67	56	81	1	2	1
Negro	91	89	98	1	0	2
Non-Negro	57	35	79	2	3	1
Newton						
Total	74	66	80	1	1	0
Negro	92	91	93	1	1	1
Non-Negro	64	48	73	1	1	0
Noxubee						
Total	86	66	95	0	1	0
Negro	97	92	99	0	1	0
Non-Negro	56	38	77	0	1	0
Oktibbeha						
Total	37	27	61	16	16	18
Negro	94	92	97	0	0	0
Non-Negro	15	11	31	22	19	32
Panola						
Total	68	38	79	2	5	1
Negro	95	94	95	0	0	0
Non-Negro	40	20	54	4	6	3
Pearl River						
Total	44	43	45	11	14	7
Negro	81	81	83	1	0	5
Non-Negro	32	24	39	14	20	7
Perry						
Total	79	--	79	0	--	0
Negro	98	--	98	0	--	0
Non-Negro	70	--	70	0	--	0
Pike						
Total	62	51	79	3	4	1
Negro	84	76	92	0	0	1
Non-Negro	45	35	64	4	6	1
Pontotoc						
Total	69	49	84	2	3	1
Negro	93	96	91	1	0	2
Non-Negro	64	40	82	2	3	1
Prentiss						
Total	68	55	83	2	2	1
Negro	92	89	95	1	0	2
Non-Negro	65	50	81	2	2	1
Quitman						
Total	76	63	82	2	5	0
Negro	97	98	97	0	0	0
Non-Negro	52	26	65	4	10	1
Rankin						
Total	43	18	58	10	15	7
Negro	89	86	90	0	0	0
Non-Negro	27	12	40	14	17	11
Scott						
Total	61	43	78	4	7	1
Negro	90	87	92	0	0	1
Non-Negro	46	22	71	6	11	1
Sharkey						
Total	75	--	75	1	--	1
Negro	92	--	92	0	--	0
Non-Negro	49	--	49	1	--	1
Simpson						
Total	65	35	75	1	2	1
Negro	92	94	92	0	0	0
Non-Negro	53	27	66	2	3	1

Table 35.-(continued)

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
Smith						
Total	79	--	79	3	--	3
Negro	95	--	95	1	--	1
Non-Negro	70	--	70	3	--	3
Stone						
Total	50	42	60	3	4	1
Negro	84	74	98	2	4	0
Non-Negro	38	29	48	3	5	1
Sunflower						
Total	79	71	85	1	2	1
Negro	93	91	94	0	0	0
Non-Negro	44	27	60	4	6	2
Tallahatchie						
Total	86	75	90	0	0	0
Negro	97	97	97	0	0	0
Non-Negro	65	45	75	1	1	1
Tate						
Total	65	39	82	4	8	1
Negro	95	87	98	0	0	0
Non-Negro	36	15	60	7	12	1
Tippah						
Total	70	63	76	0	0	0
Negro	89	99	81	1	0	1
Non-Negro	65	52	74	0	0	0
Tishomingo						
Total	67	--	67	0	--	0
Negro	88	--	88	0	--	0
Non-Negro	66	--	66	0	--	0
Tunica						
Total	80	--	80	1	--	1
Negro	95	--	95	0	--	0
Non-Negro	44	--	44	2	--	2
Union						
Total	65	55	80	2	3	0
Negro	94	94	95	0	0	0
Non-Negro	57	40	79	2	4	0
Walthall						
Total	73	--	73	4	--	4
Negro	92	--	92	0	--	0
Non-Negro	60	--	60	6	--	6
Warren						
Total	51	48	61	9	7	14
Negro	79	75	94	0	0	1
Non-Negro	19	15	32	19	17	25
Washington						
Total	60	57	72	5	6	3
Negro	85	83	94	0	0	0
Non-Negro	20	16	39	13	15	6
Wayne						
Total	64	51	81	4	6	1
Negro	91	91	92	2	3	0
Non-Negro	50	32	74	5	8	2
Webster						
Total	70	--	70	1	--	1
Negro	93	--	93	0	--	0
Non-Negro	59	--	59	2	--	2
Wilkinson						
Total	86	--	86	1	--	1
Negro	98	--	98	0	--	3
Non-Negro	54	--	54	3	--	0
Winston						
Total	66	58	86	3	4	1
Negro	92	91	96	1	1	2
Non-Negro	48	35	78	4	5	1
Yalobusha						
Total	72	59	86	1	1	1
Negro	91	83	96	1	1	1
Non-Negro	61	49	77	1	1	2

Table 35.-(continued)

Area and Race	Percent of Units Renting For					
	Less Than $40(1)			$100 or More		
	Total	Urban	Rural	Total	Urban	Rural
Yazoo						
Total	77	69	85	2	3	2
Negro	93	91	96	0	0	0
Non-Negro	44	21	67	7	9	4

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1 (Washington, D. C.: USGPO), Tables 31 and 35; Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Second Count, Tab 47.

TABLE 36. OCCUPIED YEAR-ROUND HOUSING UNITS WITHOUT COMPLETE KITCHEN FACILITIES AND PIPED WATER, BY RURAL/URBAN RESIDENCE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
United States						
Total	--(1)	--	--	--	--	--
Negro	11	4	50	8	1	44
Non-Negro	--	--	--	--	--	--
Mississippi						
Total	17	--	--	13	--	--
Negro	44	17	66	35	6	59
Non-Negro	4	--	--	3	--	--
Adams						
Total	17	15	19	8	3	14
Negro	35	30	44	17	7	33
Non-Negro	2	2	2	1	0	1
Alcorn						
Total	12	3	19	10	1	18
Negro	23	11	55	15	3	50
Non-Negro	11	2	17	9	1	16
Amite						
Total	29	--	29	26	--	26
Negro	65	--	65	58	--	58
Non-Negro	6	--	6	5	--	5
Attala						
Total	25	10	35	21	4	32
Negro	59	29	79	50	12	75
Non-Negro	8	1	13	7	1	11
Benton						
Total	30	--	30	27	--	27
Negro	70	--	70	67	--	67
Non-Negro	14	--	14	11	--	11
Bolivar						
Total	32	19	43	24	7	38
Negro	56	40	64	41	15	56
Non-Negro	4	1	7	2	0	5
Calhoun						
Total	16	--	16	14	--	14
Negro	56	--	56	51	--	51
Non-Negro	8	--	8	6	--	6
Carroll						
Total	41	--	41	37	--	37
Negro	78	--	78	72	--	72
Non-Negro	15	--	15	13	--	13
Chickasaw						
Total	21	9	27	18	5	25
Negro	57	34	69	51	20	67
Non-Negro	6	1	10	5	0	8
Choctaw						
Total	23	--	23	21	--	21
Negro	66	--	66	61	--	61
Non-Negro	12	--	12	10	1	10
Claiborne						
Total	38	26	44	27	3	38
Negro	54	38	62	38	4	54
Non-Negro	6	4	7	4	1	5

(1) Summaries given at the state and national levels provide these sample-based data for total populations in terms of all year-round housing units and data for Negro population in terms of occupied units. Thus, the residual category is not Non-Negro, but rather Non-Negro plus vacant housing units. Comparable percents could not be computed for either total or Non-Negro populations in these cells. Other empty cells denote no urban population.

Table 36.-(continued)

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
Clarke						
Total	21	7	24	18	5	21
Negro	55	25	60	48	15	54
Non-Negro	6	1	7	5	1	6
Clay						
Total	26	15	37	22	10	35
Negro	56	38	72	49	26	69
Non-Negro	5	2	9	3	0	7
Coahoma						
Total	27	8	55	21	0	49
Negro	44	13	77	35	1	69
Non-Negro	3	2	6	1	0	4
Copiah						
Total	28	14	36	24	9	33
Negro	60	32	76	51	20	70
Non-Negro	5	1	7	4	1	5
Covington						
Total	21	--	21	18	--	18
Negro	60	--	60	54	--	54
Non-Negro	8	--	8	6	--	6
De Soto						
Total	24	0	32	22	0	30
Negro	77	83	77	72	67	72
Non-Negro	3	0	5	3	0	4
Forrest						
Total	5	4	12	3	1	9
Negro	18	12	41	9	3	31
Non-Negro	2	1	5	1	0	3
Franklin						
Total	29	--	29	24	--	24
Negro	71	--	71	61	--	61
Non-Negro	9	--	9	7	--	7
George						
Total	9	--	9	7	--	7
Negro	53	--	53	47	--	47
Non-Negro	5	--	5	3	--	3
Greene						
Total	18	--	18	14	--	14
Negro	49	--	49	43	--	43
Non-Negro	11	--	11	8	--	8
Grenada						
Total	18	9	29	14	3	27
Negro	42	21	70	32	7	65
Non-Negro	4	1	7	3	0	6
Hancock						
Total	4	2	7	3	1	5
Negro	13	9	23	8	4	19
Non-Negro	3	1	6	2	0	4
Harrison						
Total	2	2	3	1	1	2
Negro	10	9	29	4	2	23
Non-Negro	1	1	2	0	0	1
Hinds						
Total	5	1	30	4	0	26
Negro	14	2	64	11	1	56
Non-Negro	1	1	4	0	0	3
Holmes						
Total	40	14	51	34	5	46
Negro	62	31	71	53	10	64
Non-Negro	6	1	9	5	0	7
Humphreys						
Total	37	22	42	29	7	38
Negro	60	38	68	48	12	61
Non-Negro	6	1	8	5	0	6

Table 36.-(continued)

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
Issaquena						
Total	39	--	39	33	--	33
Negro	69	--	69	57	--	57
Non-Negro	4	--	4	3	--	3
Itawamba						
Total	13	3	15	12	2	14
Negro	39	18	48	34	16	43
Non-Negro	11	1	13	10	1	12
Jackson						
Total	3	2	4	1	0	3
Negro	12	9	35	5	2	28
Non-Negro	1	1	3	1	0	2
Jasper						
Total	29	--	29	26	--	26
Negro	66	--	66	61	--	61
Non-Negro	6	--	6	5	--	5
Jefferson						
Total	48	--	48	41	--	41
Negro	66	--	66	57	--	57
Non-Negro	11	--	11	9	--	9
Jefferson Davis						
Total	30	--	30	26	--	26
Negro	63	--	63	56	--	56
Non-Negro	6	--	6	4	--	4
Jones						
Total	6	3	9	4	1	7
Negro	18	9	47	13	4	43
Non-Negro	3	1	4	2	0	3
Kemper						
Total	40	--	40	36	--	36
Negro	73	--	73	69	--	69
Non-Negro	14	--	14	11	--	11
Lafayette						
Total	16	5	28	13	3	26
Negro	52	27	67	46	17	62
Non-Negro	5	2	10	3	0	8
Lamar						
Total	6	0	7	5	0	5
Negro	27	0	27	20	0	20
Non-Negro	4	0	4	3	0	3
Lauderdale						
Total	8	4	18	6	2	16
Negro	25	12	68	18	5	63
Non-Negro	2	1	4	1	0	3
Lawrence						
Total	21	--	21	19	--	19
Negro	62	--	62	57	--	57
Non-Negro	6	--	6	5	--	5
Leake						
Total	24	8	28	22	5	26
Negro	61	36	64	55	26	59
Non-Negro	11	3	13	9	0	11
Lee						
Total	10	3	16	8	1	15
Negro	37	12	56	32	6	52
Non-Negro	5	1	7	3	0	6
Leflore						
Total	20	5	41	14	0	34
Negro	36	9	67	27	1	56
Non-Negro	2	1	4	1	0	3
Lincoln						
Total	14	8	18	10	3	16
Negro	40	21	64	31	7	59
Non-Negro	5	2	7	3	0	5

Table 36.-(continued)

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
Lowndes						
Total	16	13	20	9	2	19
Negro	49	38	70	28	7	68
Non-Negro	2	2	3	1	0	2
Madison						
Total	30	13	41	24	4	37
Negro	54	25	72	43	7	64
Non-Negro	3	2	4	2	1	3
Marion						
Total	14	6	18	10	2	14
Negro	42	22	53	30	10	42
Non-Negro	4	1	5	2	0	4
Marshall						
Total	39	18	47	36	13	44
Negro	69	36	79	64	26	76
Non-Negro	9	1	12	8	1	10
Monroe						
Total	17	9	23	15	6	21
Negro	50	31	66	44	21	63
Non-Negro	6	1	10	5	1	8
Montgomery						
Total	21	9	30	17	4	27
Negro	48	24	65	40	12	59
Non-Negro	5	1	8	3	0	6
Neshoba						
Total	16	11	18	14	8	17
Negro	49	37	62	42	28	58
Non-Negro	10	2	13	8	1	11
Newton						
Total	15	8	16	13	5	14
Negro	45	23	53	38	16	47
Non-Negro	6	1	7	5	0	6
Noxubee						
Total	46	26	52	42	19	49
Negro	79	67	81	73	51	77
Non-Negro	5	1	7	4	0	6
Oktibbeha						
Total	20	7	35	17	4	32
Negro	58	32	72	50	21	67
Non-Negro	4	1	8	3	0	7
Panola						
Total	34	8	40	30	7	35
Negro	71	47	72	64	40	65
Non-Negro	9	1	11	7	0	9
Pearl River						
Total	4	6	4	2	1	3
Negro	20	18	26	9	4	19
Non-Negro	1	1	2	1	0	1
Perry						
Total	19	--	19	15	--	15
Negro	60	--	60	48	--	48
Non-Negro	8	--	8	6	--	6
Pike						
Total	12	3	18	8	1	14
Negro	29	9	39	21	2	30
Non-Negro	2	0	4	1	0	2
Pontotoc						
Total	16	6	19	14	4	16
Negro	59	33	67	54	29	62
Non-Negro	9	2	11	8	0	9
Prentiss						
Total	13	5	16	11	4	14
Negro	42	30	51	38	27	46
Non-Negro	10	2	13	8	1	12
Quitman						
Total	37	15	42	32	5	38
Negro	66	29	75	58	10	69
Non-Negro	8	2	9	6	0	8

Table 36.-(continued)

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
Rankin						
Total	14	1	20	12	0	17
Negro	60	21	63	51	6	55
Non-Negro	2	1	4	2	0	2
Scott						
Total	20	10	24	17	8	21
Negro	52	32	63	46	27	57
Non-Negro	7	1	10	5	0	8
Sharkey						
Total	34	--	34	28	--	28
Negro	58	--	58	48	--	48
Non-Negro	4	--	4	3	--	3
Simpson						
Total	17	4	20	14	1	16
Negro	54	26	56	43	2	47
Non-Negro	5	1	6	4	0	5
Smith						
Total	15	--	15	13	--	13
Negro	55	--	55	51	--	51
Non-Negro	8	--	8	7	--	7
Stone						
Total	10	6	12	6	2	9
Negro	42	26	54	28	8	43
Non-Negro	2	0	3	1	0	2
Sunflower						
Total	31	15	41	22	1	33
Negro	55	30	66	38	2	55
Non-Negro	3	1	5	2	0	4
Tallahatchie						
Total	42	20	47	38	8	44
Negro	73	42	79	66	17	75
Non-Negro	10	2	12	8	0	10
Tate						
Total	30	11	36	26	5	32
Negro	7	40	74	60	20	68
Non-Negro	68	1	9	5	0	7
Tippah						
Total	17	5	21	15	3	19
Negro	44	25	51	39	18	47
Non-Negro	13	1	17	12	1	15
Tishomingo						
Total	13	--	13	12	--	12
Negro	44	--	44	37	--	37
Non-Negro	12	--	12	11	--	11
Tunica						
Total	51	--	51	46	--	46
Negro	74	--	74	67	--	67
Non-Negro	9	--	9	7	--	7
Union						
Total	14	8	17	11	4	15
Negro	44	31	62	34	17	57
Non-Negro	9	1	13	8	1	11
Walthall						
Total	19	--	19	15	--	15
Negro	53	--	53	42	--	42
Non-Negro	4	--	4	3	--	3
Warren						
Total	13	8	22	8	1	19
Negro	29	14	67	19	3	60
Non-Negro	3	2	4	1	0	3
Washington						
Total	12	4	33	8	0	29
Negro	22	7	63	16	0	56
Non-Negro	2	1	4	1	0	3
Wayne						
Total	21	14	23	18	9	21
Negro	57	39	65	50	28	61
Non-Negro	7	2	9	6	1	8

Table 36.-(continued)

Area and Race	Percent of Units Without Complete Kitchen Facilities			Percent of Units Without Piped Water		
	Total	Urban	Rural	Total	Urban	Rural
Webster						
Total	19	--	19	16	--	16
Negro	63	--	63	56	--	56
Non-Negro	9	--	9	7	--	7
Wilkinson						
Total	45	--	45	37	--	37
Negro	68	--	68	57	--	57
Non-Negro	9	--	9	7	--	7
Winston						
Total	23	12	31	21	8	29
Negro	56	34	72	51	25	68
Non-Negro	8	1	13	7	1	11
Yalobusha						
Total	22	7	29	19	3	26
Negro	59	22	72	53	12	67
Non-Negro	6	2	8	4	0	6
Yazoo						
Total	29	19	37	21	5	33
Negro	54	32	78	39	8	71
Non-Negro	6	2	9	5	0	7

Source: U. S. Bureau of the Census, 1970 Census of Housing, Volume 1, Part 26, Table 6; Report HC(1)-B1 (Washington, D.C.: USGPO), Table 35; Summary Tape of 1970, U. S. Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Second Count, Tabs 39 and 54.

TABLE 37.- OCCUPIED YEAR-ROUND HOUSING UNITS WITH NO FLUSH TOILET AND NO BATHTUB OR SHOWER, BY RURAL/URBAN RESIDENCE AND RACE, UNITED STATES, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area and Race	Percent of Units With No Flush Toilet			Percent of Units With No Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
United States						
Total	--(1)	--	--	--	--	--
Negro	10	2	56	12	4	56
Non-Negro	--	--	--	--	--	--
Mississippi						
Total	17	--	--	20	--	--
Negro	42	10	68	49	24	69
Non-Negro	6	--	7	--	--	--
Adams						
Total	12	6	20	18	17	20
Negro	25	12	46	39	34	46
Non-Negro	2	1	2	2	1	3
Alcorn						
Total	16	2	28	18	5	28
Negro	23	7	65	34	22	65
Non-Negro	15	1	26	16	2	27
Amite						
Total	33	--	33	32	--	32
Negro	68	--	68	69	--	69
Non-Negro	9	--	9	8	--	8
Attala						
Total	27	7	40	31	17	41
Negro	56	15	82	68	45	82
Non-Negro	13	3	20	14	4	21
Benton						
Total	34	--	34	35	--	35
Negro	74	--	74	74	--	74
Non-Negro	18	--	18	19	--	19
Bolivar						
Total	28	10	43	34	22	45
Negro	48	22	63	60	49	66
Non-Negro	4	1	8	4	1	8
Calhoun						
Total	22	--	22	24	--	24
Negro	66	--	66	15	--	15
Non-Negro	13	--	13	69	--	69
Carroll						
Total	43	--	43	44	--	44
Negro	78	--	78	81	--	81
Non-Negro	18	--	18	19	--	19
Chickasaw						
Total	24	8	33	26	13	34
Negro	60	29	76	65	45	76
Non-Negro	10	0	16	11	1	17
Choctaw						
Total	31	--	31	32	--	32
Negro	74	--	74	75	--	75
Non-Negro	19	--	19	20	--	20
Clairborne						
Total	31	4	45	40	30	44
Negro	44	6	62	57	46	62
Non-Negro	6	1	9	6	2	8
Clarke						
Total	25	7	29	27	13	30
Negro	60	21	67	63	38	67
Non-Negro	11	2	13	12	4	14

(1) Total and Non-Negro not available at national and state levels. See footnote, Table 36.

Table 37.-(continued)

Area and Race	Percent of Units With No Flush Toilet			Percent of Units With No Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
Clay						
Total	26	11	41	28	16	41
Negro	55	30	75	61	43	76
Non-Negro	6	1	12	6	1	12
Coahoma						
Total	24	1	56	35	19	58
Negro	39	2	78	58	37	80
Non-Negro	2	0	6	2	0	6
Copiah						
Total	29	12	39	31	17	40
Negro	59	27	79	64	37	80
Non-Negro	7	1	10	7	2	10
Covington						
Total	25	--	25	26	--	26
Negro	62	--	62	64	--	64
Non-Negro	12	--	12	13	--	13
De Soto						
Total	26	0	35	26	0	35
Negro	81	67	81	81	83	81
Non-Negro	5	0	7	5	0	7
Forrest						
Total	5	2	16	8	5	17
Negro	16	6	52	28	22	53
Non-Negro	2	0	6	2	1	7
Franklin						
Total	31	--	31	33	--	33
Negro	72	--	72	76	--	76
Non-Negro	12	--	12	12	--	12
George						
Total	16	--	16	16	--	16
Negro	62	--	62	62	--	62
Non-Negro	11	--	11	12	--	12
Greene						
Total	25	--	25	25	--	25
Negro	56	--	56	56	--	56
Non-Negro	18	--	18	18	--	18
Grenada						
Total	17	4	32	22	13	33
Negro	38	10	73	51	32	74
Non-Negro	4	0	9	5	0	10
Hancock						
Total	5	2	10	5	2	10
Negro	14	9	26	14	9	26
Non-Negro	4	0	9	4	1	9
Harrison						
Total	2	1	5	3	3	5
Negro	7	6	30	11	10	32
Non-Negro	1	1	4	2	1	4
Hinds						
Total	5	1	31	5	1	32
Negro	13	2	64	15	3	66
Non-Negro	1	0	4	1	0	5
Holmes						
Total	39	7	52	43	18	54
Negro	60	14	72	66	39	74
Non-Negro	7	1	11	7	1	11
Humphreys						
Total	35	11	44	41	27	46
Negro	57	20	70	66	49	73
Non-Negro	7	0	9	7	1	9

Table 37.-(continued)

Area and Race	Percent of Units With No Flush Toilet			Percent of Units With No Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
Issaquena						
Total	38	--	38	40	--	40
Negro	64	--	64	67	--	67
Non-Negro	5	--	5	7	--	7
Itawamba						
Total	21	5	24	21	6	24
Negro	43	27	51	41	23	50
Non-Negro	20	3	23	20	4	23
Jackson						
Total	2	1	6	3	2	6
Negro	8	4	41	12	9	39
Non-Negro	1	0	4	2	0	4
Jasper						
Total	32	--	32	32	--	32
Negro	72	--	72	72	--	72
Non-Negro	9	--	9	9	--	9
Jefferson						
Total	47	--	47	48	--	48
Negro	63	--	63	66	--	66
Non-Negro	13	--	13	13	--	13
Jefferson Davis						
Total	33	--	33	34	--	34
Negro	66	--	66	68	--	68
Non-Negro	8	--	8	9	--	9
Jones						
Total	7	3	13	11	9	13
Negro	20	8	58	35	28	57
Non-Negro	4	0	7	5	1	8
Kemper						
Total	44	--	44	45	--	45
Negro	77	--	77	78	--	78
Non-Negro	18	--	18	19	--	19
Lafayette						
Total	18	4	35	20	7	36
Negro	53	23	71	59	39	71
Non-Negro	7	0	17	8	1	19
Lamar						
Total	9	0	9	10	0	10
Negro	31	0	31	35	0	35
Non-Negro	6	0	6	6	0	6
Lauderdale						
Total	8	3	21	11	7	21
Negro	25	10	74	34	22	74
Non-Negro	2	0	7	3	1	7
Lawrence						
Total	23	--	23	24	--	24
Negro	63	--	63	65	--	65
Non-Negro	8	--	8	9	--	9
Leake						
Total	29	6	35	31	7	37
Negro	65	30	70	66	36	77
Non-Negro	16	1	20	17	1	22
Lee						
Total	12	2	21	14	5	22
Negro	39	10	61	45	24	62
Non-Negro	7	1	12	8	1	13
Leflore						
Total	16	1	38	25	13	43
Negro	30	3	61	47	27	69
Non-Negro	2	0	5	2	0	5

Table 37.-(continued)

Area and Race	Flush Toilet			Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
Lincoln						
Total	14	4	20	16	9	21
Negro	36	12	65	44	26	66
Non-Negro	6	0	9	7	1	10
Lowndes						
Total	11	4	22	18	15	22
Negro	32	11	73	55	46	73
Non-Negro	2	0	5	3	1	5
Madison						
Total	28	6	43	36	24	43
Negro	50	10	72	64	46	74
Non-Negro	4	2	5	4	3	6
Marion						
Total	15	5	21	18	11	22
Negro	43	19	56	50	37	57
Non-Negro	6	0	9	7	2	10
Marshall						
Total	41	17	49	42	19	49
Negro	70	33	82	72	39	82
Non-Negro	11	2	14	11	2	14
Monroe						
Total	19	8	28	21	11	28
Negro	49	25	69	54	36	69
Non-Negro	10	1	15	10	2	16
Montgomery						
Total	21	6	33	27	15	36
Negro	46	18	66	60	32	72
Non-Negro	7	1	13	8	2	14
Neshoba						
Total	22	11	27	24	13	29
Negro	54	39	70	57	46	70
Non-Negro	16	1	22	18	2	24
Newton						
Total	19	11	20	20	13	22
Negro	52	30	60	55	36	63
Non-Negro	9	1	10	9	1	11
Noxubee						
Total	47	23	54	48	26	54
Negro	79	62	82	80	68	82
Non-Negro	6	0	9	7	0	10
Oktibbeha						
Total	21	6	39	24	10	40
Negro	59	30	74	65	48	75
Non-Negro	5	1	13	6	1	14
Panola						
Total	36	8	41	36	9	42
Negro	70	46	71	72	52	73
Non-Negro	11	1	15	12	1	15
Pearl River						
Total	5	4	6	7	7	7
Negro	17	11	33	25	21	34
Non-Negro	3	0	4	3	1	4
Perry						
Total	24	--	24	25	--	25
Negro	64	--	64	66	--	66
Non-Negro	12	--	12	13	--	13
Pike						
Total	13	3	20	14	3	21
Negro	32	8	42	43	11	45
Non-Negro	2	1	4	3	1	4
Pontotoc						
Total	22	6	26	22	7	26
Negro	64	38	72	64	38	72
Non-Negro	15	1	18	16	2	19

able 37.-(continued)

Area and Race	Percent of Units With No Flush Toilet			Percent of Units With No Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
rentiss						
Total	19	5	26	21	7	27
Negro	47	30	60	50	34	62
Non-Negro	17	2	23	18	3	24
uitman						
Total	37	9	43	39	19	43
Negro	64	18	75	68	37	12
Non-Negro	10	0	12	10	1	76
ankin						
Total	15	1	22	16	2	22
Negro	61	20	64	63	34	66
Non-Negro	3	0	5	3	1	5
cott						
Total	23	11	30	24	12	31
Negro	56	35	67	58	40	67
Non-Negro	11	1	16	12	1	17
harkey						
Total	33	--	33	36	--	36
Negro	57	--	57	62	--	62
Non-Negro	5	--	5	5	--	5
impson						
Total	20	1	23	22	4	25
Negro	54	2	58	59	21	63
Non-Negro	8	0	10	9	1	11
mith						
Total	22	--	22	22	--	22
Negro	65	--	65	65	--	65
Non-Negro	14	--	14	15	--	15
tone						
Total	13	7	16	13	8	17
Negro	49	33	60	51	37	60
Non-Negro	4	0	6	4	0	7
unflower						
Total	25	2	37	34	18	43
Negro	42	4	60	59	37	70
Non-Negro	4	0	6	4	1	6
allahatchie						
Total	42	12	49	45	24	49
Negro	71	24	80	76	50	81
Non-Negro	12	2	14	12	2	14
ate						
Total	30	7	38	33	13	39
Negro	66	25	74	71	45	76
Non-Negro	9	0	13	10	1	14
ippah						
Total	22	4	28	25	9	30
Negro	45	20	54	50	35	56
Non-Negro	19	2	25	21	4	26
ishomingo						
Total	20	--	20	22	--	22
Negro	50	--	50	51	--	51
Non-Negro	19	--	19	21	--	21
unica						
Total	53	--	53	55	--	55
Negro	77	--	77	79	--	79
Non-Negro	9	--	9	9	--	9
nion						
Total	20	6	28	22	11	28
Negro	42	24	67	52	41	66
Non-Negro	17	1	24	18	2	25
althall						
Total	21	--	21	21	--	21
Negro	55	--	55	57	--	57
Non-Negro	5	--	5	5	--	5
arren						
Total	11	3	23	15	10	23
Negro	24	6	70	35	21	70
Non-Negro	2	0	4	2	1	4

Table 37.-(continued)

Area and Race	Percent of Units With No Flush Toilet			Percent of Units With No Bathtub or Shower		
	Total	Urban	Rural	Total	Urban	Rural
Washington						
Total	10	1	34	15	8	34
Negro	18	1	64	29	16	64
Non-Negro	2	0	5	2	1	5
Wayne						
Total	27	15	31	27	17	31
Negro	62	41	73	63	45	73
Non-Negro	14	2	18	13	3	17
Webster						
Total	24	--	24	25	--	25
Negro	65	--	65	67	--	67
Non-Negro	15	--	15	16	--	16
Wilkinson						
Total	47	--	47	46	--	46
Negro	70	--	70	69	--	69
Non-Negro	11	--	11	11	--	11
Winston						
Total	27	11	38	28	13	38
Negro	60	33	78	61	37	78
Non-Negro	12	1	20	13	1	20
Yalobusha						
Total	24	5	33	27	11	34
Negro	59	18	74	66	36	76
Non-Negro	9	1	13	10	2	13
Yazoo						
Total	26	9	39	32	23	40
Negro	46	15	79	59	39	80
Non-Negro	7	0	11	8	1	12

Source: U. S. Bureau of the Census, 1970 Census of Housing, Report HC(1)-B1, Table 35; Volume 1, Part 26 (Washington, D.C.: USGPO), Table 6; Summary Tape of 1970, Census of Population (Mississippi State, Mississippi: Mississippi Summary Tape Processing Center), Second Count, Tabs 40 and 41.

TABLE 38.-NUMBER OF FARMS AND FARMERS IN 1969, 1964 and 1959 AND PERCENT CHANGE 1964 to 1969 and 1959 to 1969, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES.

Area	Number of Farms and Farmers(1)			Percent Change	
	1969	1964	1959	1964-1969	1959-1969
United States	2,730,250	3,157,857	3,710,503	-13.5	-26.4
South	1,161,399	1,372,732	1,645,949	-15.4	-29.4
E. S. C.(2)	391,543	468,155	562,604	-16.4	-30.4
Mississippi	72,577	109,141	138,142	-33.5	-47.5
Adams	322	451	606	-28.6	-46.9
Alcorn	1,178	1,411	1,888	-16.5	-37.6
Amite	1,105	1,543	1,900	-28.4	-41.8
Attala	1,225	1,816	2,143	-32.5	-42.8
Benton	669	887	1,139	-24.6	-41.3
Bolivar	1,070	1,657	2,593	-35.4	-58.7
Calhoun	1,102	1,438	1,894	-23.4	-41.8
Carroll	773	1,142	1,481	-32.3	-47.8
Chickasaw	873	1,500	1,866	-41.8	-53.2
Choctaw	666	931	1,173	-28.5	-43.2
Claiborne	409	590	680	-30.7	-39.9
Clarke	708	1,211	1,568	-41.5	-54.8
Clay	738	1,181	1,323	-37.5	-44.2
Coahoma	527	1,153	1,847	-54.3	-71.5
Copiah	1,163	1,713	2,035	-32.1	-42.9
Covington	1,015	1,476	1,678	-31.2	-39.5
De Soto	999	1,674	2,298	-40.3	-56.5
Forrest	483	663	901	-27.1	-46.4
Franklin	375	708	725	-47.0	-48.3
George	508	854	1,024	-40.5	-50.4
Greene	414	753	749	-45.0	-44.7
Grenada	541	725	966	-25.4	-44.0
Hancock	222	471	525	-52.9	-57.7
Harrison	320	500	871	-36.0	-63.3
Hinds	1,639	2,229	3,053	-26.5	-46.3
Holmes	1,225	1,794	2,340	-31.7	-47.6
Humphreys	578	693	1,082	-16.6	-46.6
Issaquena	174	195	313	-10.8	-44.4
Itawamba	1,094	1,489	1,772	-26.5	-38.3
Jackson	274	556	677	-50.7	-59.5
Jasper	1,080	1,599	1,944	-32.5	-44.5
Jefferson	500	628	915	-20.4	-45.4
Jefferson Davis	1,153	1,676	1,946	-31.2	-40.8
Jones	1,345	2,293	2,414	-41.3	-44.3
Kemper	999	1,455	1,730	-31.3	-42.3
Lafayette	948	1,342	1,682	-29.4	-43.6
Lamar	596	1,059	1,160	-43.7	-48.6
Lauderdale	993	1,485	1,673	-37.2	-44.2
Lawrence	714	1,169	1,286	-38.9	-44.5
Leake	1,540	2,220	2,640	-30.6	-41.7
Lee	1,264	1,797	2,555	-29.7	-50.5
Leflore	452	905	1,712	-50.1	-73.6
Lincoln	996	1,607	1,859	-38.0	-46.4
Lowndes	968	1,147	1,765	-15.6	-45.2
Madison	1,399	1,988	2,776	-29.6	-49.6
Marion	1,112	1,928	1,906	-42.3	-41.7
Marshall	1,312	2,024	2,622	-35.2	-50.0
Monroe	1,337	1,894	2,627	-29.4	-49.1
Montgomery	717	993	1,100	-27.8	-34.8
Neshoba	1,422	2,248	2,535	-36.7	-43.9
Newton	1,158	1,623	1,945	-28.7	-40.5

(1) The Census defines "farms" as "places on which agricultural operations were conducted at any time during the census year under the control of an individual management. Places of 10 acres or less were counted as farms if the sales of agricultural products for the year amounted, or normally would amount, to at least $250. Places of 10 or more acres were counted as farms if the sales of agricultural products for the year amounted, or normally would amount, to at least $50."

(2) East South Central

Table 38.-(continued)

Area	Number of Farms and Farmers (1)			Percent Change	
	1969	1964	1959	1964-1969	1959-1969
Noxubee	1,013	1,748	2,033	-42.0	-50.2
Oktibbeha	801	1,275	1,532	-37.2	-47.7
Panola	1,471	2,466	3,176	-40.3	-53.7
Pearl River	700	1,368	1,434	-48.8	-51.2
Perry	392	727	762	-46.1	-48.6
Pike	803	1,503	1,733	-46.6	-53.7
Pontotoc	1,588	1,940	2,408	-28.1	-34.1
Prentiss	1,242	1,563	2,017	-20.5	-38.4
Quitman	586	1,433	2,052	-59.1	-71.4
Rankin	1,071	1,597	2,023	-32.9	-47.1
Scott	1,234	1,777	2,024	-30.6	-39.0
Sharkey	245	380	531	-35.5	-53.9
Simpson	1,253	1,832	2,042	-31.6	-38.6
Smith	1,297	1,765	2,055	-26.5	-36.9
Stone	263	437	485	-39.8	-45.8
Sunflower	839	1,582	3,154	-47.0	-73.4
Tallahatchie	833	1,486	2,162	-53.9	-61.5
Tate	1,134	1,848	2,253	-38.6	-49.7
Tippah	1,403	1,711	1,937	-18.0	-27.6
Tishomingo	862	1,066	1,281	-19.1	-32.7
Tunica	303	853	1,756	-64.5	-82.7
Union	1,334	1,615	2,034	-17.4	-34.4
Walthall	1,404	1,764	1,953	-20.4	-28.1
Warren	389	600	769	-35.2	-49.4
Washington	653	795	1,501	-17.9	-56.5
Wayne	716	1,261	1,397	-43.2	-48.7
Webster	821	1,131	1,289	-27.4	-36.3
Wilkinson	477	823	912	-42.0	-47.7
Winston	1,287	1,787	2,135	-28.0	-39.7
Yalobusha	780	1,009	1,293	-22.7	-39.7
Yazoo	1,049	1,515	2,107	-30.8	-50.2

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 2, Chapter 2, Table 8, Volume 1, Parts 30-33, Section 1 (Washington, D.C.: USGPO), Table 1; 1954, County Table 1.

TABLE 39.-FARM POPULATION IN 1970, 1964 AND 1960 AND PERCENT CHANGE 1964 TO 1970 AND 1960 TO 1964, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES.

Area	FARM POPULATION			Percent Change	
	1970	1964(1)	1960	1964-1970	1960-1964
United States	8,292,150	11,250,128	13,444,898	-26.3	-16.3
South	2,971,433	4,715,044	5,910,797	-37.0	-20.4
E. S. C.	1,068,477	1,639,011	2,080,261	-34.8	-21.2
Mississippi	210,323	402,108	542,839	-47.7	-25.9
Adams	312	1,561	1,506	-80.0	+ 3.7
Alcorn	2,956	5,052	6,879	-41.5	-26.6
Amite	2,818	6,175	6,035	-54.4	+ 2.3
Attala	3,196	6,392	8,421	-50.0	-24.1
Benton	1,867	3,718	5,002	-49.8	-25.7
Bolivar	3,089	7,728	25,455	-60.0	-69.6
Calhoun	3,404	5,133	6,879	-33.7	-25.4
Carroll	1,998	4,240	6,550	-52.9	-35.3
Chickasaw	2,209	5,562	5,656	-60.3	- 1.7
Choctaw	1,460	2,944	3,174	-50.4	- 7.2
Claiborne	1,368	1,901	2,252	-28.0	-15.6
Clarke	1,469	3,818	3,111	-61.5	+22.7
Clay	2,077	4,119	4,853	-49.6	-15.1
Coahoma	4,855	5,045	12,089	- 3.8	-58.3
Copiah	2,230	5,911	6,293	-62.3	- 6.1
Covington	2,535	5,045	6,642	-49.8	-24.0
De Soto	3,892	7,224	10,016	-46.1	-27.9
Forrest	830	2,330	1,654	-64.4	+40.9
Franklin	615	2,285	1,465	-73.1	+56.0
George	1,027	2,944	3,046	-65.1	- 3.3
Greene	1,122	2,668	1,876	-57.9	+42.2
Grenada	1,005	3,057	4,110	-67.1	-25.6
Hancock	435	1,799	1,196	-75.8	+50.4
Harrison	519	1,579	1,150	-67.1	+37.3
Hinds	3,886	8,816	10,771	-55.9	-18.2
Holmes	3,677	7,351	10,081	-50.0	-27.1
Humphreys	3,250	3,007	4,739	+ 8.1	-36.5
Issaquena	699	709	1,766	- 1.4	-59.9
Itawamba	2,327	4,926	5,752	-52.8	-14.4
Jackson	447	1,878	1,013	-76.2	+85.4
Jasper	2,158	5,753	5,800	-62.5	- 0.8
Jefferson	1,827	2,249	2,838	-18.8	-20.8
Jefferson Davis	2,702	6,683	6,631	-59.6	+ 0.8
Jones	3,165	7,681	6,794	-58.8	+13.1
Kemper	3,476	4,971	7,288	-30.1	-31.8
Lafayette	1,767	5,188	6,835	-65.9	-24.1
Lamar	1,199	3,680	2,933	-67.4	+25.5
Lauderdale	1,376	4,550	3,558	-69.8	+27.9
Lawrence	1,216	3,961	3,279	-69.3	+20.8
Leake	4,004	7,694	10,392	-48.0	-26.0
Lee	3,053	6,055	9,182	-49.6	-34.1
Leflore	4,040	3,646	18,152	+10.8	-79.9
Lincoln	2,942	5,302	4,195	-44.5	+26.4
Lowndes	2,761	4,048	7,745	-31.8	-47.7
Madison	3,321	8,179	12,100	-59.4	-32.4
Marion	2,299	6,272	6,672	-63.3	- 6.0
Marshall	4,086	8,802	12,693	-53.6	-30.7
Monroe	3,649	7,153	9,206	-49.0	-22.3
Montgomery	1,741	3,612	4,524	-51.8	-20.2
Neshoba	3,910	7,236	8,582	-46.0	-15.7
Newton	2,577	4,830	6,849	-46.6	-29.5
Noxubee	3,666	7,272	9,539	-49.6	-23.8
Oktibbeha	1,790	5,319	4,666	-66.3	+14.0
Panola	4,538	10,487	15,748	-56.7	-33.4
Pearl River	1,109	4,429	3,322	-75.0	+33.3

(1) Figures for 1964 are from the Census of Agriculture and are therefore collected differently and are not directly comparable to the decennial census counts. See text.

(2) East South Central

Table 39.-(continued)

Area	Farm Population			Percent Change	
	1970	1964(1)	1960	1964-1970	1960-1964
Perry	1,120	2,463	2,047	-54.5	+20.3
Pike	1,933	5,495	4,407	-64.8	+24.7
Pontotoc	3,657	6,630	8,796	-44.8	-24.6
Prentiss	3,022	5,443	8,230	-44.5	-33.9
Quitman	4,289	5,989	9,889	-28.4	-39.4
Rankin	2,623	5,804	5,864	-54.8	- 1.0
Scott	2,776	6,431	7,570	-56.8	-15.0
Sharkey	3,529	1,859	5,985	+89.8	-68.9
Simpson	2,349	6,471	6,874	-63.7	- 5.9
Smith	3,307	5,684	7,177	-41.8	-20.8
Stone	541	1,460	1,057	-62.9	+38.1
Sunflower	6,136	6,910	13,802	-11.2	-49.9
Tallahatchie	8,855	5,631	9,590	+57.3	-41.3
Tate	3,037	8,192	10,625	-62.9	-22.9
Tippah	3,093	6,192	8,056	-50.0	-23.1
Tishomingo	2,018	3,469	4,865	-41.8	-28.7
Tunica	5,875	3,721	10,700	+57.9	-65.3
Union	3,213	5,860	7,989	-45.2	-26.6
Walthall	2,880	6,448	7,111	-55.3	- 9.3
Warren	1,023	2,247	256	-54.5	+777.7
Washington	2,985	3,101	7,067	- 3.7	-56.1
Wayne	1,720	3,681	3,684	-53.3	- 0.1
Webster	1,630	3,991	4,367	-59.2	- 8.6
Wilkinson	1,218	3,040	2,989	-59.9	+ 1.7
Winston	3,340	6,143	8,359	-45.6	-26.5
Yalobusha	1,533	3,822	5,453	-59.9	-29.9
Yazoo	2,675	5,962	11,075	-55.1	-46.2

Source: U. S. Bureau of the Census, 1970 Census of Population, Report PC (1)-C1 (Washington, D.C.: USGPO), Corrected Table 142; 1960, Report PC(1)-C26, Tables 9 and 107. 1964 Census of Agriculture, Volume 2, Chaper 5, Table 18; Volume 1 Part 33 (Washington, D.C.: USGPO), pp. 288-297.

TABLE 40. FARM OPERATORS, BY TENURE, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area and Year	Number of Farm Operators	Full Owners	Part Owners	Tenants	Percent Tenancy
United States					
1969	2,730,250	1,705,720	671,607	352,923	12.9
1964	3,157,857	1,818,254	781,884	539,921	17.1
South					
1969	1,161,399	779,731	245,280	136,388	11.7
1964	1,372,732	808,500	303,612	253,500	18.5
E. S. C. (1)					
1969	391,543	292,532	64,406	34,605	8.8
1964	468,155	287,583	90,057	89,109	19.0
Mississippi					
1969	72,577	52,489	13,508	6,580	9.0
1964	109,141	64,557	18,542	25,634	23.5
Adams					
1969	322	231	46	45	13.9
1964	451	294	64	90	20.0
Alcorn					
1969	1,178	864	205	109	9.2
1964	1,411	753	300	357	25.3
Amite					
1969	1,105	858	187	60	5.4
1964	1,543	1,088	231	221	14.3
Attala					
1969	1,225	920	221	84	6.8
1964	1,816	1,050	335	431	23.7
Benton					
1969	669	416	161	92	13.7
1964	887	341	176	369	41.6
Bolivar					
1969	1,070	467	382	221	20.6
1964	1,657	441	367	812	49.0
Calhoun					
1969	1,102	765	233	104	9.4
1964	1,438	753	349	332	23.1
Carroll					
1969	773	536	153	84	10.8
1964	1,142	597	223	317	27.8
Chickasaw					
1969	873	605	185	83	9.5
1964	1,500	717	330	451	30.1
Choctaw					
1969	666	541	99	26	3.9
1964	931	608	162	87	9.3
Claiborne					
1969	409	269	91	49	11.9
1964	590	366	100	121	20.5
Clarke					
1969	708	558	111	39	5.5
1964	1,211	880	225	103	8.5
Clay					
1969	738	547	133	58	7.8
1964	1,181	659	217	305	25.8

(1) East South Central

Table 40.-(continued)

Area and Year	Number of Farm Operators	Full Owners	Part Owners	Tenants	Percent Tenancy
Coahoma					
1969	527	192	185	150	28.4
1964	1,153	188	156	799	69.3
Copiah					
1969	1,163	879	207	77	6.6
1964	1,713	1,150	283	276	16.1
Covington					
1969	1,015	813	164	38	3.7
1964	1,476	1,082	268	120	8.1
De Soto					
1969	999	568	238	193	19.3
1964	1,674	583	364	721	43.1
Forrest					
1969	483	410	55	18	3.7
1964	663	563	68	32	4.8
Franklin					
1969	375	301	54	20	5.3
1964	708	512	124	72	10.2
George					
1969	508	405	92	11	2.1
1964	854	742	102	9	1.1
Greene					
1969	414	356	52	6	1.4
1964	753	658	71	22	2.9
Grenada					
1969	541	351	124	66	12.1
1964	725	308	144	271	37.4
Hancock					
1969	222	183	33	6	2.7
1964	471	393	32	38	8.1
Harrison					
1969	320	262	41	17	5.3
1964	500	451	24	25	5.0
Hinds					
1969	1,639	1,088	309	242	14.7
1964	2,229	1,091	400	722	32.4
Holmes					
1969	1,225	794	277	154	12.5
1964	1,794	833	400	552	30.8
Humphreys					
1969	578	273	206	99	17.1
1964	693	249	205	230	33.2
Issaquena					
1969	174	81	69	24	13.7
1964	195	119	56	20	10.3
Itawamba					
1969	1,094	851	205	38	3.4
1964	1,489	979	304	205	13.8
Jackson					
1969	274	231	29	14	5.1
1964	556	509	38	8	1.4
Jasper					
1969	1,080	915	109	56	5.1
1964	1,599	1,277	189	132	8.3
Jefferson					
1969	500	341	103	56	11.2
1964	628	382	112	133	21.2

Table 40.-(continued)

Area and Year	Number of Farm Operators	Full Owners	Part Owners	Tenants	Percent Tenancy
Jefferson Davis					
1969	1,153	949	156	48	4.1
1964	1,676	1,092	380	202	12.1
Jones					
1969	1,345	1,133	164	48	3.5
1964	2,293	1,935	228	122	5.3
Kemper					
1969	999	761	138	100	10.0
1964	1,455	934	202	316	21.7
Lafayette					
1969	948	709	156	83	8.7
1964	1,342	654	321	367	27.3
Lamar					
1969	596	523	59	14	2.3
1964	1,059	907	102	46	4.3
Lauderdale					
1969	933	762	110	61	6.5
1964	1,485	1,135	180	165	11.1
Lawrence					
1969	714	599	94	21	2.9
1964	1,169	816	234	118	10.1
Leake					
1969	1,540	1,244	216	80	5.1
1964	2,220	1,544	339	335	15.1
Lee					
1969	1,264	870	272	122	9.6
1964	1,797	940	408	444	24.7
Leflore					
1969	452	172	153	127	28.0
1964	905	199	157	534	59.0
Lincoln					
1969	996	795	170	31	3.1
1964	1,607	1,289	213	102	6.3
Lowndes					
1969	968	674	185	109	11.2
1964	1,147	632	233	278	24.2
Madison					
1969	1,399	912	265	222	15.8
1964	1,988	916	292	770	38.7
Marion					
1969	1,112	930	129	53	4.7
1964	1,928	1,582	204	138	7.2
Marshall					
1969	1,312	737	311	264	20.1
1964	2,024	587	343	1,093	54.0
Monroe					
1969	1,337	953	275	109	8.1
1964	1,894	1,010	384	494	26.1
Montgomery					
1969	717	505	140	72	10.0
1964	993	557	195	236	23.8
Neshoba					
1969	1,422	1,188	176	58	4.0
1964	2,248	1,704	267	277	12.3
Newton					
1969	1,158	1,026	116	16	1.3
1964	1,623	1,337	184	99	6.1

Table 40.-(continued)

Area and Year	Number of Farm Operators	Full Owners	Part Owners	Tenants	Percent Tenancy
Noxubee					
1969	1,013	661	190	162	15.9
1964	1,748	733	218	786	45.0
Oktibbeha					
1969	801	570	172	59	7.3
1964	1,275	805	231	235	18.4
Panola					
1969	1,471	961	315	195	13.2
1964	2,466	872	403	1,184	48.0
Pearl River					
1969	700	607	87	6	0.8
1964	1,368	1,167	125	59	4.3
Perry					
1969	392	348	39	5	1.2
1964	727	625	77	22	3.0
Pike					
1969	803	653	117	33	4.1
1964	1,503	1,186	180	134	8.9
Pontotoc					
1969	1,588	1,188	305	95	5.9
1964	1,940	1,082	502	354	18.2
Prentiss					
1969	1,242	871	283	88	7.0
1964	1,563	806	346	410	26.2
Quitman					
1969	586	237	187	162	27.6
1964	1,433	285	181	947	66.1
Rankin					
1969	1,071	808	189	74	6.9
1964	1,597	1,177	265	151	9.5
Scott					
1969	1,234	1,064	130	40	3.2
1964	1,777	1,299	253	224	12.6
Sharkey					
1969	245	100	115	30	12.2
1964	380	100	84	181	47.6
Simpson					
1969	1,253	1,069	139	45	3.5
1964	1,832	1,362	287	177	9.7
Smith					
1969	1,297	1,151	112	34	2.6
1964	1,765	1,480	203	72	4.1
Stone					
1969	263	226	32	5	1.9
1964	437	372	45	16	3.7
Sunflower					
1969	839	352	272	215	25.6
1964	1,582	377	268	916	57.9
Tallahatchie					
1969	833	352	254	127	15.2
1964	1,486	577	263	641	43.1
Tate					
1969	1,134	724	263	147	12.9
1964	1,848	645	326	871	47.1
Tippah					
1969	1,403	1,110	195	98	6.9
1964	1,711	879	370	462	27.0

Table 40.-(continued)

Area and Year	Number of Farm Operators	Full Owners	Part Owners	Tenants	Percent Tenancy
Tishomingo					
1969	862	644	158	60	6.9
1964	1,066	684	257	124	11.6
Tunica					
1969	303	115	100	88	29.0
1964	853	115	96	638	74.8
Union					
1969	1,334	939	275	120	8.9
1964	1,615	900	386	328	20.3
Walthall					
1969	1,404	1,124	236	44	3.1
1964	1,764	1,255	293	212	12.0
Warren					
1969	389	242	87	60	15.4
1964	600	365	117	114	19.0
Washington					
1969	653	286	230	137	20.9
1964	795	305	242	242	30.4
Wayne					
1969	716	605	89	22	3.0
1964	1,261	1,056	154	47	3.7
Webster					
1969	821	612	158	51	6.2
1964	1,131	744	209	177	15.6
Wilkinson					
1969	477	336	77	64	13.4
1964	823	483	110	228	27.7
Winston					
1969	1,287	1,074	151	62	4.8
1964	1,787	1,320	215	251	14.0
Yalobusha					
1969	780	483	198	99	12.6
1964	1,009	479	227	299	29.6
Yazoo					
1969	1,049	564	309	176	16.7
1964	1,515	564	324	613	40.5

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Parts 22-37, Section 2, Table 3; Volume 2, Chapter 3, Part 1 (Washington, D.C.: USGPO), Tables 5 and 8.

TABLE 41. SELECTED CHARACTERISTICS OF FARM OPERATORS, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 AND 1964.

Area And Year	Average Age		Percent			
	All Operators	Negro Operators	Over 65 Years Old	Negro	Residing on The Farm Operated	Working off Farm 100 Days or More
United States						
1969	51.2	--(1)	16.6	3.2	81.2	39.9
1964	51.3	--	17.4	5.8	90.5	33.0
South						
1969	52.6	--	19.5	7.3	75.5	45.0
1964	52.4	--	19.5	13.1	89.2	35.4
E.S.C.(2)						
1969	52.8	--	5.2	8.6	68.4	45.5
1964	52.4	--	6.1	15.3	88.6	33.8
Mississippi						
1969	54.1	58.1	22.1	23.7	69.0	44.0
1964	52.8	--	20.1	34.6	88.4	34.0
Adams						
1969	54.2	59.6	24.8	33.9	60.2	60.9
1964	53.4	--	22.0	44.3	88.7	48.1
Alcorn						
1969	51.3	56.3	16.6	3.8	69.5	47.2
1964	51.0	--	13.5	8.4	85.7	32.2
Amite						
1969	55.3	57.9	22.7	32.1	72.2	43.1
1964	54.5	--	23.8	40.7	93.4	35.7
Attala						
1969	55.4	57.4	23.5	27.5	69.1	44.2
1964	53.2	--	22.0	38.4	87.3	32.0
Benton						
1969	52.3	52.9	17.0	28.0	65.8	45.3
1964	48.9	--	12.4	47.7	90.8	25.3
Bolivar						
1969	53.8	58.8	18.0	36.2	61.8	22.3
1964	51.3	--	15.1	53.0	80.9	11.9
Calhoun						
1969	51.7	53.3	16.0	6.2	70.8	36.2
1964	50.9	--	15.0	17.2	87.9	26.9
Carroll						
1969	54.1	57.9	19.3	31.0	65.2	39.5
1964	53.9	--	22.0	42.9	86.1	28.6
Chickasaw						
1969	53.1	55.3	23.8	29.2	73.0	44.6
1964	51.8	--	19.7	37.4	79.0	30.5
Choctaw						
1969	55.0	59.3	25.8	14.4	76.4	46.2
1964	54.3	--	23.6	19.7	92.6	37.4
Claiborne						
1969	55.9	58.1	25.9	45.5	61.9	49.6
1964	56.5	--	27.1	53.2	83.6	33.1

(1) Comparable statistics not available at national and regional levels. However, for the South, average age of Negro operators of class 1-5 farms was 53.7, in 1969, with comparable figures for all farm operators 51.5 years.
(2) East South Central

Table 41.-(continued)

Area And Year	Average Age		Percent			
	All Operators	Negro Operators	Over 65 Years Old	Negro	Residing on The Farm Operated	Working off Farm 100 Days or More
Clarke						
1969	57.3	60.5	31.1	27.7	72.5	46.8
1964	55.6	--	27.3	29.3	91.2	45.7
Clay						
1969	54.2	58.6	24.0	40.8	75.2	46.5
1964	52.8	--	21.8	51.6	87.9	38.5
Coahoma						
1969	53.7	61.8	21.4	27.9	60.3	19.5
1964	51.3	--	15.5	69.0	74.8	16.5
Copiah						
1969	56.8	58.4	30.4	24.5	70.5	43.0
1964	55.0	--	24.0	36.2	91.9	39.5
Covington						
1969	54.3	58.0	21.8	23.5	76.1	44.2
1964	53.5	--	20.7	27.0	88.6	42.1
De Soto						
1969	55.1	60.1	26.0	38.4	67.8	46.5
1964	52.5	--	20.0	56.2	89.0	25.1
Forrest						
1969	54.3	63.7	23.4	9.3	72.7	53.2
1964	53.7	--	21.7	12.2	91.7	53.2
Franklin						
1969	54.8	63.8	25.6	8.5	66.1	50.9
1964	55.4	--	25.8	13.8	89.4	48.7
George						
1969	52.2	59.2	15.2	4.5	78.0	53.1
1964	52.4	--	18.7	3.2	93.6	58.3
Greene						
1969	54.3	58.9	23.7	10.9	73.7	52.2
1964	53.7	--	22.8	10.1	94.2	46.9
Grenada						
1969	53.7	58.7	21.8	29.4	60.6	43.3
1964	51.3	--	17.4	43.2	77.8	31.6
Hancock						
1969	50.8	75.0	14.9	0.9	73.0	51.4
1964	49.9	--	17.0	0.8	91.9	56.7
Harrison						
1969	52.2	38.0	16.9	0.3	68.8	66.6
1964	52.8	--	22.8	1.4	93.0	56.0
Hinds						
1969	55.6	58.3	24.5	35.6	60.7	51.8
1964	54.2	--	22.4	55.9	85.3	32.3
Holmes						
1969	55.4	57.2	25.1	52.5	64.7	34.9
1964	54.1	--	24.0	63.4	87.6	21.7
Humphreys						
1969	52.0	54.1	18.2	34.4	59.0	25.3
1964	52.6	--	17.3	49.6	78.4	12.6
Issaquena						
1969	50.4	58.3	14.4	29.3	67.8	39.1
1964	52.2	--	16.4	32.3	88.7	23.6
Itawamba						
1969	53.5	59.6	20.0	3.6	69.2	49.0
1964	52.3	--	19.2	4.5	93.3	40.2
Jackson						
1969	50.1	--	16.1	0.0	67.5	72.3
1964	53.9	--	23.4	3.2	91.9	59.4

Table 41.-(continued)

Area And Year	Average Age		Percent			
	All Operators	Negro Operators	Over 65 Years Old	Negro	Residing on The Farm Operated	Working off Farm 100 Days or More
Jasper						
1969	56.4	59.3	26.0	27.6	72.8	49.3
1964	54.4	--	24.6	34.6	93.6	40.0
Jefferson						
1969	54.9	59.7	26.8	34.0	65.4	45.2
1964	56.2	--	28.2	43.3	85.2	38.4
Jefferson Davis						
1969	56.6	58.3	26.2	39.9	69.0	42.3
1964	53.8	--	22.1	48.6	90.6	33.4
Jones						
1969	52.6	58.2	19.3	10.9	73.7	53.2
1964	52.7	--	19.1	11.7	88.6	56.9
Kemper						
1969	56.3	59.8	29.1	37.9	70.3	39.5
1964	54.2	--	23.5	47.9	90.7	30.9
Lafayette						
1969	54.8	58.4	21.8	19.6	58.2	53.0
1964	53.6	--	22.5	35.8	88.5	28.8
Lamar						
1969	53.1	66.4	21.5	2.3	72.0	57.2
1964	52.1	--	17.4	2.2	92.4	53.5
Lauderdale						
1969	56.5	62.6	27.7	22.8	71.6	60.6
1964	54.9	--	24.2	26.7	90.4	52.6
Lawrence						
1969	55.2	57.3	22.8	26.2	68.9	44.8
1964	53.6	--	21.4	30.3	92.5	40.9
Leake						
1969	54.5	57.8	23.1	30.0	74.6	45.8
1964	53.7	--	22.8	32.7	89.9	32.0
Lee						
1969	51.1	53.9	16.1	10.3	67.3	49.1
1964	52.4	--	18.4	21.8	88.1	33.4
Leflore						
1969	50.1	55.4	11.3	19.7	65.3	24.3
1964	49.3	--	8.7	56.8	78.6	12.4
Lincoln						
1969	54.9	62.5	24.1	10.8	73.3	51.7
1964	54.3	--	23.8	12.7	96.5	48.0
Lowndes						
1969	54.6	58.9	25.0	35.5	69.5	42.1
1964	53.3	--	21.1	45.6	90.9	32.9
Madison						
1969	56.2	58.1	29.0	57.9	62.8	45.8
1964	53.2	--	22.1	69.1	85.0	27.9
Marion						
1969	54.0	56.7	19.9	26.6	74.0	52.6
1964	51.8	--	19.9	31.0	91.4	45.1
Marshall						
1969	55.2	56.8	24.0	55.8	62.0	38.7
1964	50.9	--	18.4	68.9	85.9	19.1
Monroe						
1969	53.9	58.0	23.2	21.2	65.1	44.0
1964	52.7	--	20.1	38.4	86.6	32.6

Table 41.-(continued)

Area And Year	Average Age		Percent			
	All Operators	Negro Operators	Over 65 Years Old	Negro	Residing on The Farm Operated	Working off Farm 100 Days or More
Montgomery						
1969	54.0	55.9	21.2	22.3	60.4	44.6
1964	51.4	--	16.3	34.4	86.3	40.3
Neshoba						
1969	55.7	57.9	25.2	11.6	73.4	47.5
1964	53.2	--	21.4	17.8	94.4	39.9
Newton						
1969	55.2	59.8	24.1	14.4	74.4	47.2
1964	54.8	--	24.3	19.4	91.4	38.7
Noxubee						
1969	54.7	59.0	27.2	49.5	62.0	37.0
1964	51.9	--	21.3	67.8	83.4	21.7
Oktibbeha						
1969	53.5	56.5	22.1	33.3	75.5	53.9
1964	53.9	--	22.7	46.5	90.7	42.0
Panola						
1969	55.0	58.2	25.4	31.6	64.4	37.7
1964	51.4	--	16.3	55.1	86.0	22.4
Pearl River						
1969	51.1	57.8	14.1	1.3	69.7	56.9
1964	52.7	--	21.0	3.2	88.8	56.4
Perry						
1969	53.7	59.0	22.4	14.8	70.4	48.5
1964	53.2	--	19.4	14.4	84.7	47.3
Pike						
1969	53.9	57.0	23.5	33.5	70.5	50.2
1964	53.7	--	22.8	38.3	93.5	46.8
Pontotoc						
1969	53.0	55.8	18.3	6.4	68.1	44.3
1964	51.6	--	16.0	12.5	93.8	29.9
Prentiss						
1969	51.3	56.3	16.3	4.3	74.2	43.6
1964	50.6	--	14.8	9.8	88.4	26.8
Quitman						
1969	51.4	55.1	14.0	28.3	66.9	22.5
1964	49.0	--	13.0	60.9	83.0	9.6
Rankin						
1969	52.8	60.0	19.9	19.7	65.5	48.3
1964	53.6	--	21.6	34.1	89.4	44.5
Scott						
1969	54.0	58.3	23.4	20.2	72.1	45.4
1964	53.4	--	22.3	28.4	91.2	39.7
Sharkey						
1969	51.6	55.0	15.1	21.6	66.9	21.2
1964	51.4	--	12.9	50.8	82.4	26.3
Simpson						
1969	54.5	56.9	23.8	29.8	72.5	42.8
1964	54.1	--	23.5	28.5	87.9	40.1
Smith						
1969	53.4	59.9	21.3	9.8	75.2	40.5
1964	53.4	--	22.3	11.0	87.7	38.4
Stone						
1969	53.9	66.3	23.2	7.6	71.9	56.3
1964	53.2	--	23.8	7.8	91.1	52.9
Sunflower						
1969	52.0	58.7	15.3	13.0	63.2	24.6
1964	49.9	--	12.0	49.9	86.3	10.4

Table 41.-(continued)

Area And Year	Average Age		Percent			
	All Operators	Negro Operators	Over 65 Years Old	Negro	Residing on The Farm Operated	Working off Farm 100 Days or More
Tallahatchie						
1969	51.7	57.0	15.1	21.1	67.3	28.1
1964	49.6	--	13.8	49.0	86.9	17.2
Tate						
1969	55.2	57.3	23.8	29.9	64.8	37.4
1964	50.2	--	16.8	53.7	86.8	25.9
Tippah						
1969	53.6	55.9	19.2	9.0	70.8	45.2
1964	51.5	--	16.1	14.9	84.9	30.3
Tishomingo						
1969	52.0	54.0	17.9	2.9	65.9	46.2
1964	52.3	--	17.4	3.8	89.3	35.5
Tunica						
1969	51.0	57.1	15.2	37.0	65.3	25.7
1964	49.8	--	12.8	78.0	84.4	6.0
Union						
1969	53.1	57.1	19.5	6.0	72.0	45.7
1964	51.9	--	15.1	9.4	93.6	33.4
Walthall						
1969	54.3	57.8	21.9	27.6	77.8	38.9
1964	52.7	--	20.8	33.8	95.2	36.3
Warren						
1969	55.7	60.7	29.0	24.7	63.8	49.1
1964	54.4	--	24.5	35.8	86.0	46.2
Washington						
1969	52.9	59.0	19.4	32.5	63.5	24.8
1964	51.4	--	13.7	40.5	77.0	14.5
Wayne						
1969	55.7	61.5	23.7	18.3	73.3	45.4
1964	54.7	--	24.8	20.5	88.3	42.8
Webster						
1969	52.9	55.8	17.5	5.7	71.9	49.1
1964	52.5	--	19.5	15.3	84.5	31.7
Wilkinson						
1969	56.3	57.6	27.0	36.5	58.1	43.6
1964	55.9	--	25.3	54.3	87.6	35.1
Winston						
1969	55.3	59.9	22.5	24.4	74.8	48.5
1964	52.9	--	21.7	32.1	90.2	33.5
Yalobusha						
1969	55.4	59.3	26.8	25.9	67.6	40.0
1964	54.0	--	24.3	38.6	87.4	26.8
Yazoo						
1969	54.5	59.8	23.1	27.7	65.4	38.4
1964	52.7	--	18.3	45.2	85.1	24.2

Source: U.S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Part 33, Section 2; Volume 2, Chapter 3, Part 1, Table 34; Part 3 (Washington, D.C.: USGPO), Tables 3, 16, 22, 23 and 79.

TABLE 42.-INDUSTRY OF EMPLOYED FARM RESIDENTS, UNITED STATES, SOUTH, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1970.

Area	Percent Aged 16 and Over Employed in							
	Agriculture Forestry & Fisheries	Con-struc-tion	Manu-fac-turer	Transportation Communication & Other Public	Trade Wholesale & Retail	Personal Services	Professional Services	Other
United States	46.4	5.0	16.4	3.4	9.9	2.3	10.1	6.5
South	38.8	7.0	21.1	4.0	10.9	3.0	10.7	5.0
Mississippi	34.3	6.7	23.8	4.2	9.8	3.9	11.5	5.9
Adams	26.8	--	14.3	3.6	9.8	17.0	9.8	18.8
Alcorn	25.3	5.5	34.2	6.5	12.7	0.4	8.8	6.7
Amite	36.9	8.4	21.8	7.9	7.2	3.9	9.8	4.0
Attala	26.4	5.0	33.0	6.3	12.1	0.5	9.7	7.0
Benton	28.3	2.5	25.6	5.0	8.2	1.5	15.9	13.0
Bolivar	46.8	5.3	19.8	1.1	8.9	3.6	10.6	3.9
Calhoun	42.6	2.7	27.6	1.3	11.1	2.9	5.6	6.3
Carroll	35.9	9.3	13.2	3.5	14.0	5.8	12.9	5.5
Chickasaw	27.0	3.8	36.4	2.4	10.1	3.1	9.3	7.9
Choctaw	9.7	9.0	49.8	1.4	6.4	5.0	15.2	3.6
Claiborne	16.1	1.5	35.5	15.5	4.5	3.0	19.1	4.8
Clarke	14.3	5.8	41.2	4.0	14.8	1.1	10.4	8.5
Clay	28.2	6.3	37.8	4.4	13.2	2.0	6.4	1.7
Coahoma	62.7	4.4	5.4	2.4	8.7	4.2	8.9	3.3
Copiah	30.9	7.5	26.3	6.2	10.0	3.9	8.4	6.8
Covington	28.0	10.3	22.1	2.6	19.0	0.5	14.1	3.3
De Soto	36.0	4.3	21.5	8.0	11.8	5.8	5.4	7.2
Forrest	16.5	9.6	14.5	16.5	12.9	1.7	12.5	15.8
Franklin	11.7	17.5	19.7	8.1	6.7	1.8	23.8	10.8
George	21.4	7.7	28.4	7.9	7.7	1.9	15.4	9.6
Greene	24.5	4.1	36.7	3.8	12.2	--	12.8	5.8
Grenada	27.0	11.8	22.5	5.9	11.8	1.7	17.6	1.7
Hancock	22.4	7.1	19.2	10.9	11.5	--	28.8	--
Harrison	14.3	13.2	10.4	10.0	4.9	7.7	23.6	15.9
Hinds	33.8	6.2	14.5	6.7	13.1	4.0	10.8	10.9
Holmes	51.5	3.7	18.9	1.2	6.1	1.9	14.3	2.4
Humphreys	62.5	3.7	8.9	3.6	3.2	3.7	10.8	3.7
Issaquena	78.3	1.3	5.8	1.3	--	2.9	6.3	4.2
Itawamba	21.5	10.5	38.4	5.4	11.4	--	7.5	5.2
Jackson	19.4	11.9	28.4	9.7	10.4	--	12.7	7.5
Jasper	17.2	11.8	35.4	3.8	11.0	1.9	7.4	11.6
Jefferson	16.1	12.2	22.1	7.0	8.7	4.3	16.7	12.8
Jefferson Davis	34.6	9.1	19.1	5.4	12.8	3.0	10.6	5.5
Jones	27.3	8.7	20.2	8.4	7.0	4.0	19.2	5.3
Kemper	34.7	6.5	21.4	4.3	8.8	4.0	15.2	5.0
Lafayette	26.7	6.2	14.2	3.9	11.7	6.4	19.6	11.3
Lamar	18.7	13.7	24.5	4.5	8.2	1.3	20.8	8.4
Lauderdale	18.2	11.8	9.5	4.8	20.2	8.0	21.1	6.4
Lawrence	27.7	13.0	19.5	2.7	6.9	2.4	10.6	17.1
Leake	34.1	10.4	25.1	3.5	7.3	4.6	11.0	4.0
Lee	26.8	5.5	27.8	3.8	12.6	2.8	12.8	8.0
Leflore	60.8	1.8	6.8	5.3	9.4	7.6	4.3	4.1
Lincoln	33.9	10.6	20.6	1.5	12.3	3.8	7.6	9.7
Lowndes	29.5	4.7	29.8	3.8	11.9	6.0	9.3	5.1
Madison	31.6	5.1	22.2	5.6	8.4	3.0	16.2	8.0
Marion	21.4	12.9	28.4	0.8	8.2	3.6	13.5	11.1
Marshall	41.2	6.8	27.0	3.2	8.4	5.3	5.9	2.3
Monroe	31.0	4.2	35.1	3.5	6.3	5.3	10.4	4.2
Montgomery	38.7	6.1	21.7	3.8	9.0	1.2	15.9	3.5
Neshoba	26.1	11.4	34.9	1.3	7.8	1.8	11.4	5.2
Newton	19.3	10.3	31.2	1.0	11.9	2.5	12.3	11.4

Table 42.-(continued)

Area	Percent Aged 16 and Over Employed in							
	Agriculture Forestry & Fisheries	Con-struc-tion	Manu-fac-turer	Transportation Communication & Other Public	Trade Wholesale & Retail	Personal Services	Professional Services	Other
Noxubee	49.4	5.2	10.5	2.3	16.3	4.4	5.7	6.1
Oktibbeha	27.9	12.1	22.7	2.0	5.9	3.2	20.2	6.1
Panola	37.0	10.1	20.7	3.8	9.3	4.5	10.9	3.7
Pearl River	22.6	10.3	23.7	3.9	11.1	3.1	12.5	12.8
Perry	19.9	9.8	30.8	2.0	8.9	--	15.6	13.0
Pike	33.7	6.3	19.1	9.0	12.1	3.4	12.2	4.2
Pontotoc	27.3	4.7	38.2	1.6	11.7	3.6	9.0	4.0
Prentiss	27.1	3.4	43.3	3.3	7.2	1.4	11.1	3.1
Quitman	52.9	1.7	20.1	4.6	3.5	9.5	5.6	2.1
Rankin	30.8	6.9	14.3	7.6	14.7	5.1	14.3	6.3
Scott	27.4	12.5	33.1	0.8	11.5	1.6	10.0	3.0
Sharkey	57.2	1.7	9.6	6.4	3.6	4.3	13.3	3.9
Simpson	35.2	11.1	23.3	4.8	7.9	4.9	7.9	4.9
Smith	35.1	4.4	23.4	4.2	11.2	3.5	9.9	8.3
Stone	21.9	20.9	10.7	1.5	13.3	2.0	23.0	6.6
Sunflower	45.9	0.7	11.8	1.6	7.6	8.3	14.2	9.9
Tallahatchie	50.7	3.9	16.2	3.6	4.7	8.9	9.2	2.8
Tate	42.6	6.0	21.8	5.8	5.5	3.8	10.5	4.1
Tippah	37.0	6.6	21.8	4.1	9.4	2.1	13.9	5.0
Tishomingo	23.4	7.0	40.2	2.1	9.2	4.6	8.8	4.6
Tunica	54.3	5.1	6.0	4.5	7.6	14.1	6.1	2.4
Union	28.4	5.5	26.5	4.4	13.9	4.0	13.0	4.2
Walthall	32.3	8.0	18.8	3.1	14.6	1.2	16.1	5.9
Warren	20.5	17.5	20.9	2.7	8.4	6.1	20.2	3.7
Washington	51.3	3.3	10.7	2.8	12.3	2.5	13.8	3.3
Wayne	19.9	8.9	22.2	6.2	18.8	2.5	9.7	11.8
Webster	33.9	6.1	36.5	2.0	8.2	2.4	4.1	6.9
Wilkinson	39.8	3.6	30.1	7.3	--	1.5	13.4	4.3
Winston	24.1	7.4	38.6	3.8	10.4	2.8	5.3	7.5
Yalobusha	45.5	4.5	19.8	1.7	5.7	5.9	12.7	4.2
Yazoo	48.9	5.9	16.4	5.8	6.6	3.5	8.9	4.0

Source: U. S. Bureau of the Census, 1970 Census of Population, Report PC(1)-C1, Corrected Tables 92 and 138; Report PC(1)-C26 (Washington, D.C.: USGPO), Corrected Tables 55 and 136.

TABLE 43. SIZE AND VALUE CHARACTERISTICS OF FARMS, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area And Year	Percent of Total Land In Farms	Average Number of Acres Per Farm	Average Per Acre Value of Land & Buildings (Dollars)	Market Value of All Farm Products Sold (in $1000)
United States				
1969	47.0	389.5	194	45,609,090
1964	49.0	351.6	144	35,292,430
South				
1969	59.5	286.6	209	13,354,049
1964	61.8	252.2	150	10,586,323
E.S.C.(1)				
1969	53.0	155.0	240	2,748,552
1964	56.2	137.8	159	2,381,563
Mississippi				
1969	53.0	221.0	234	685,178
1964	58.7	162.6	150	724,031
Adams				
1969	61.1	544.8	163	2,058
1964	54.1	343.9	104	918
Alcorn				
1969	64.3	141.3	209	4,369
1964	62.1	114.0	120	4,772
Amite				
1969	48.5	204.6	181	6,172
1964	57.9	175.0	119	5,000
Attala				
1969	47.7	180.3	165	4,645
1964	56.8	144.8	92	5,191
Benton				
1969	53.4	210.4	182	3,870
1964	52.2	155.1	113	3,901
Bolivar				
1969	83.3	459.5	394	30,217
1964	81.8	289.6	287	46,348
Calhoun				
1969	57.5	191.7	196	6,314
1964	59.0	155.6	112	7,014
Carroll				
1969	62.7	331.0	153	5,691
1964	65.6	234.5	98	5,278
Chickasaw				
1969	60.4	223.8	201	6,864
1964	74.2	160.1	116	6,428
Choctaw				
1969	43.6	174.7	135	1,617
1964	46.8	134.1	81	1,689
Claiborne				
1969	45.0	344.4	148	3,462
1964	60.1	316.7	86	2,999
Clarke				
1969	27.6	173.6	155	1,876
1964	40.3	148.6	105	2,107
Clay				
1969	59.0	211.8	191	5,800
1964	69.7	156.3	110	4,149

(1) East South Central

Table 43.-(continued)

Area And Year	Percent of Total Land In Farms	Average Number of Acres Per Farm	Average Per Acre Value of Land & Buildings (Dollars)	Market Value of All Farm Products Sold (in $1000)
Coahoma				
1969	87.2	602.6	343	21,403
1964	86.5	273.6	302	32,414
Copiah				
1969	50.3	216.1	161	6,708
1964	60.0	175.2	101	6,627
Covington				
1969	50.5	132.5	199	7,116
1964	62.3	112.4	131	5,362
De Soto				
1969	67.9	207.2	464	10,070
1964	87.8	148.8	305	14,092
Forrest				
1969	29.1	180.5	243	2,984
1964	29.4	132.9	170	2,528
Franklin				
1969	20.6	199.3	154	1,091
1964	33.6	172.4	95	1,154
George				
1969	21.3	129.0	239	2,572
1964	28.0	100.8	176	1,448
Greene				
1969	17.4	196.2	153	2,665
1964	24.4	150.8	91	1,737
Grenada				
1969	53.1	271.0	184	4,200
1964	61.2	234.0	103	4,365
Hancock				
1969	13.0	181.4	261	822
1964	20.5	134.9	167	936
Harrison				
1969	10.6	123.7	433	1,546
1964	12.7	94.8	204	1,182
Hinds				
1969	69.3	236.9	264	16,911
1964	70.3	177.1	147	9,920
Holmes				
1969	73.1	293.6	191	10,423
1964	81.5	222.2	107	13,557
Humphreys				
1969	88.7	413.7	334	11,158
1964	81.5	308.4	221	17,740
Issaquena				
1969	37.3	568.1	349	6,155
1964	47.0	640.0	200	5,982
Itawamba				
1969	42.0	132.9	204	6,414
1964	50.1	116.6	104	5,855
Jackson				
1969	7.6	131.0	372	776
1964	11.7	100.2	204	840
Jasper				
1969	42.0	170.0	169	5,229
1964	52.4	143.3	107	3,133

Table 43.-(continued)

Area And Year	Percent of Total Land In Farms	Average Number of Acres Per Farm	Average Per Acre Value of Land & Buildings (Dollars)	Market Value of All Farm Products Sold (in $1000)
Jefferson				
1969	45.4	302.3	124	3,161
1964	59.5	315.5	78	1,963
Jefferson Davis				
1969	53.5	123.0	205	5,109
1964	69.9	110.5	115	5,086
Jones				
1969	39.0	130.4	229	21,079
1964	47.6	93.8	167	11,236
Kemper				
1969	41.3	200.5	141	3,007
1964	48.7	162.3	77	2,719
Lafayette				
1969	52.1	235.0	161	4,215
1964	59.6	172.4	93	5,553
Lamar				
1969	31.1	167.1	197	3,021
1964	45.3	136.8	116	3,158
Lauderdale				
1969	34.7	168.4	198	2,651
1964	45.3	140.8	118	2,406
Lawrence				
1969	41.3	160.4	182	1,929
1964	55.0	130.3	101	2,277
Leake				
1969	44.9	109.3	227	13,982
1964	56.0	94.5	127	10,841
Lee				
1969	71.2	163.8	263	13,761
1964	69.0	111.7	172	10,721
Leflore				
1969	88.6	743.2	367	18,775
1964	86.6	359.9	264	26,892
Lincoln				
1969	44.7	168.1	176	5,940
1964	55.3	129.1	128	3,867
Lowndes				
1969	57.8	194.1	224	7,830
1964	63.6	180.3	150	5,889
Madison				
1969	73.6	244.6	240	9,575
1964	69.3	167.6	143	9,566
Marion				
1969	47.2	149.2	186	5,061
1964	60.1	109.7	132	4,310
Marshall				
1969	63.6	220.2	207	7,564
1964	74.3	162.8	112	10,348
Monroe				
1969	55.8	205.2	204	8,715
1964	56.9	147.9	134	9,723
Montgomery				
1969	60.2	216.7	150	4,305
1964	68.8	178.7	95	4,365

Table 43.-(continued)

Area And Year	Percent of Total Land In Farms	Average Number of Acres Per Farm	Average Per Acre Value of Land & Buildings (Dollars)	Market Value of All Farm Products Sold (in $1000)
Neshoba				
1969	51.4	131.4	214	5,045
1964	66.0	106.8	117	4,613
Newton				
1969	46.5	148.9	197	7,698
1964	54.6	124.8	128	7,952
Noxubee				
1969	66.1	290.1	223	10,484
1964	75.9	193.2	114	7,618
Oktibbeha				
1969	57.3	207.7	214	5,947
1964	67.1	152.8	111	4,563
Panola				
1969	84.9	255.8	237	12,398
1964	84.0	149.3	168	16,247
Pearl River				
1969	30.8	233.0	211	4,192
1964	40.6	157.4	175	5,337
Perry				
1969	11.7	124.8	201	3,304
1964	18.5	106.6	122	2,296
Pike				
1969	42.5	138.7	194	4,919
1964	61.2	106.9	158	3,779
Pontotoc				
1969	65.1	131.3	195	7,689
1964	70.1	115.8	111	8,686
Prentiss				
1969	69.3	149.2	234	6,233
1964	62.7	107.3	134	6,915
Quitman				
1969	88.5	397.8	350	12,753
1964	86.2	158.7	270	21,587
Rankin				
1969	42.1	194.9	259	18,378
1964	52.7	168.9	158	14,903
Scott				
1969	45.6	145.3	195	28,201
1964	53.2	117.7	149	22,849
Sharkey				
1969	71.1	809.4	304	12,019
1964	59.5	436.6	217	13,520
Simpson				
1969	46.1	138.2	208	28,184
1964	60.0	123.1	146	18,936
Smith				
1969	42.7	135.3	205	23,366
1964	53.3	124.0	142	18,675
Stone				
1969	18.1	197.7	191	1,356
1964	23.5	153.9	158	1,095
Sunflower				
1969	104.3	551.8	368	24,922
1964	102.0	285.9	285	42,239

Table 43.-(continued)

Area And Year	Percent of Total Land In Farms	Average Number of Acres Per Farm	Average Per Acre Value of Land & Buildings (Dollars)	Market Value of All Farm Products Sold (in $1000)
Tallahatchie				
1969	86.2	426.7	265	16,391
1964	79.6	220.8	209	22,792
Tate				
1969	88.4	202.1	238	8,727
1964	92.9	123.2	163	9,975
Tippah				
1969	64.3	136.1	161	5,809
1964	67.5	117.1	113	6,998
Tishomingo				
1969	35.3	115.9	183	3,266
1964	38.9	105.4	100	3,871
Tunica				
1969	84.1	813.1	319	14,341
1964	71.6	246.1	231	18,302
Union				
1969	63.4	128.3	212	5,571
1964	65.0	108.8	132	6,492
Walthall				
1969	78.7	144.4	207	8,114
1964	76.1	111.3	147	5,639
Warren				
1969	51.2	489.2	179	4,857
1964	57.9	349.7	90	3,223
Washington				
1969	80.8	581.1	406	25,060
1964	82.6	484.2	290	33,262
Wayne				
1969	23.4	173.1	157	5,462
1964	42.6	178.7	70	5,314
Webster				
1969	54.7	177.3	200	3,377
1964	61.8	145.5	95	3,621
Wilkinson				
1969	52.1	471.5	140	3,958
1964	55.0	288.5	97	1,792
Winston				
1969	46.0	138.5	190	4,102
1964	50.0	108.6	131	4,212
Yalobusha				
1969	51.5	205.9	170	3,386
1964	57.3	179.2	100	4,247
Yazoo				
1969	78.0	446.4	188	14,801
1964	73.1	289.7	131	16,906

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Parts 22-33, Section 1, pp. 285-288; Section 2, Table 1; Volume 2, Chapter 2, Part 1, Tables 8, 12 and 13; 1964, pp. 240-247, and 278-287 (Washington, D.C.: USGPO),

TABLE 44. FARMS, BY ECONOMIC CLASS, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area And Year	Percent of All Farms Classed as			
	Commercial(1)			
	1-5	6	Part-Time(2)	Retirement(3)
United States				
1969	63.5	7.1	21.0	8.3
1964	57.6	11.0	20.2	11.1
South				
1969	50.2	11.0	26.8	11.9
1964	42.5	17.2	25.5	14.7
E.S.C.(4)				
1969	41.9	10.3	25.5	12.0
1964	37.2	21.7	25.3	15.7
Mississippi				
1969	37.3	16.1	29.9	16.5
1964	33.0	23.6	26.7	16.7
Adams				
1969	27.3	12.7	39.8	20.2
1964	14.4	24.8	41.2	19.3
Alcorn				
1969	32.2	17.9	36.0	13.9
1964	39.9	24.2	24.2	11.6
Amite				
1969	34.7	17.9	29.2	18.2
1964	22.9	26.9	28.6	21.7
Attala				
1969	28.1	19.8	34.4	17.7
1964	27.0	28.9	24.7	19.3
Benton				
1969	40.7	14.1	33.2	12.1
1964	49.4	26.2	14.9	9.6
Bolivar				
1969	64.4	13.2	11.9	10.6
1964	73.1	16.5	4.5	6.0
Calhoun				
1969	49.7	16.6	24.0	9.7
1964	47.5	20.1	19.7	12.6
Carroll				
1969	43.1	19.7	23.7	13.6
1964	35.0	24.7	21.5	18.8
Chickasaw				
1969	39.2	13.9	29.7	17.3
1964	35.3	24.6	23.1	17.0
Choctaw				
1969	23.9	19.2	34.7	22.1
1964	18.5	28.0	31.6	21.8
Claiborne				
1969	36.7	15.6	29.3	18.1
1964	28.1	25.8	23.2	22.7

(1) Commercial classes 1-5 include farms selling $2,500 or more of farm products in 1969 (or less if normally selling at least this amount); Class 6 farms are those selling $50 to $2,499 in 1969, with an operator under age 65 and not working off the farm 100 days or more.

(2) Part-Time farms are those selling $50 to $2,499, operator under age 65, but working off the farm 100 days or more.

(3) Part retirement farms are those with sales of from $50 to $2,499, with an operator age 65 or more. Institutional farms, of which Mississippi had 28 in 1969 and 31 in 1964, are excluded from these percent distributions.

(4) East South Central

Table 44.-(continued)

Area And Year	Percent of All Farms Classed as			
	Commercial(1)			
	1-5	6	Part-Time(2)	Retirement(3)
Clarke				
1969	21.8	16.5	34.6	27.1
1964	13.6	22.5	38.6	25.3
Clay				
1969	33.3	15.9	30.8	20.1
1964	25.3	25.3	30.7	18.7
Coahoma				
1969	76.3	6.5	7.6	9.7
1964	61.7	22.5	8.8	7.0
Copiah				
1969	32.0	15.6	30.3	22.1
1964	21.6	25.0	32.1	21.2
Covington				
1969	26.8	22.3	32.6	18.3
1964	21.6	24.7	35.4	18.3
De Soto				
1969	35.7	13.3	31.2	19.7
1964	41.0	25.3	18.2	15.6
Forrest				
1969	32.1	11.4	36.9	19.7
1964	19.5	16.1	44.2	20.2
Franklin				
1969	22.7	18.1	35.7	23.5
1964	10.0	21.2	44.5	24.3
George				
1969	37.4	16.5	36.2	9.8
1964	15.1	16.6	51.2	17.1
Greene				
1969	30.9	13.8	37.2	18.1
1964	13.7	24.3	41.6	20.5
Grenada				
1969	42.5	17.4	26.6	13.5
1964	45.0	19.0	23.3	12.7
Hancock				
1969	30.6	19.8	36.9	12.6
1964	16.3	18.0	49.9	15.7
Harrison				
1969	27.8	11.9	48.1	12.2
1964	11.0	17.2	50.4	21.4
Hinds				
1969	39.0	14.4	30.3	16.1
1964	23.3	32.9	25.0	18.7
Holmes				
1969	34.5	23.6	22.5	19.3
1964	33.7	30.3	15.2	20.7
Humphreys				
1969	65.1	13.0	11.8	10.2
1964	75.9	13.3	4.0	6.8
Issaquena				
1969	69.0	9.2	12.6	9.2
1964	66.7	13.3	11.8	8.2
Itawamba				
1969	35.1	16.6	32.8	15.4
1964	33.4	19.7	30.1	16.9
Jackson				
1969	24.5	7.7	53.6	14.2
1964	9.9	13.5	54.9	21.8

Table 44.-(continued)

Area And Year	Percent of All Farms Classed as			
	Commercial(1)			
	1-5	6	Part-Time(2)	Retirement(3)
Jasper				
1969	28.3	16.3	34.0	21.4
1964	12.3	29.0	35.8	23.0
Jefferson				
1969	31.2	17.8	29.2	21.8
1964	19.7	27.5	29.3	23.4
Jefferson Davis				
1969	25.1	24.5	29.7	20.7
1964	24.2	28.7	27.1	19.9
Jones				
1969	37.8	10.2	37.1	14.6
1964	17.8	16.2	48.7	17.1
Kemper				
1969	32.1	18.5	26.9	22.4
1964	20.1	33.0	25.6	21.3
Lafayette				
1969	35.0	13.6	35.9	15.5
1964	38.1	21.9	21.2	18.8
Lamar				
1969	25.5	15.6	41.9	16.8
1964	15.8	21.1	47.8	15.3
Lauderdale				
1969	21.8	11.4	43.4	23.0
1964	11.3	20.3	45.5	22.6
Lawrence				
1969	22.3	23.8	34.3	19.6
1964	17.1	28.1	34.7	20.1
Leake				
1969	31.4	17.9	32.6	18.1
1964	29.2	27.2	24.7	18.9
Lee				
1969	38.7	13.4	35.8	11.9
1964	38.5	21.1	25.4	15.0
Leflore				
1969	77.7	10.4	9.1	2.9
1964	69.8	22.2	4.9	3.1
Lincoln				
1969	30.8	12.8	37.6	18.9
1964	16.4	19.9	42.1	21.6
Lowndes				
1969	35.1	18.7	28.4	17.8
1964	29.2	28.4	24.8	17.5
Madison				
1969	31.8	15.9	30.3	21.9
1964	34.9	27.6	19.7	17.8
Marion				
1969	23.8	18.3	41.1	16.7
1964	17.8	24.7	39.0	18.4
Marshall				
1969	31.9	23.3	25.9	18.8
1964	48.8	26.2	11.0	14.0
Monroe				
1969	38.4	15.9	28.1	17.5
1964	33.2	26.2	23.9	15.6
Montgomery				
1969	37.5	16.7	29.0	16.7
1964	36.5	21.0	29.7	12.8

Table 44.-(continued)

Area And Year	Percent of All Farms Classed as			
	Commercial(1)			
	1-5	6	Part-Time(2)	Retirement(3)
Neshoba				
1969	26.2	17.5	34.9	21.4
1964	21.8	24.7	34.1	19.4
Newton				
1969	29.9	14.6	35.0	20.5
1964	23.1	23.5	31.7	21.6
Noxubee				
1969	39.7	16.5	23.0	20.7
1964	29.2	37.5	15.9	17.3
Oktibbeha				
1969	35.3	13.9	34.7	15.9
1964	24.7	22.8	33.7	18.7
Panola				
1969	42.8	17.3	22.3	17.6
1964	50.0	23.0	14.9	12.1
Pearl River				
1969	35.4	13.3	41.1	10.0
1964	20.4	15.1	46.3	18.1
Perry				
1969	27.6	17.1	35.7	19.6
1964	16.1	24.6	41.4	17.9
Pike				
1969	32.3	14.7	33.7	19.2
1964	19.0	21.1	39.3	20.6
Pontotoc				
1969	34.9	17.7	32.9	14.4
1964	40.9	22.6	22.3	14.2
Prentiss				
1969	41.5	14.6	32.0	11.9
1964	47.5	22.6	18.4	11.4
Quitman				
1969	68.3	13.7	10.2	7.7
1964	73.1	18.4	2.9	5.6
Rankin				
1969	41.9	12.9	29.4	15.7
1964	25.7	19.7	36.1	18.4
Scott				
1969	41.8	14.1	27.9	16.2
1964	28.1	22.6	30.1	19.2
Sharkey				
1969	80.0	5.3	9.0	5.7
1964	66.3	10.8	15.5	7.4
Simpson				
1969	34.6	16.8	29.5	19.2
1964	27.4	18.9	32.0	21.6
Smith				
1969	41.9	17.0	24.9	16.2
1964	33.8	19.5	28.6	18.1
Stone				
1969	36.1	6.8	39.5	17.5
1964	19.2	17.4	42.6	20.8
Sunflower				
1969	76.3	7.6	10.6	5.4
1964	74.0	17.1	3.7	5.1
Tallahatchie				
1969	63.0	12.8	15.5	8.6
1964	58.2	21.9	11.4	8.5

Table 44.-(continued)

Area And Year	Percent of All Farms Classed as			
	Commercial(1)		Part-Time(2)	Retirement(3)
	1-5	6		
Tate				
1969	44.7	15.1	24.6	15.6
1964	44.4	24.1	18.9	12.6
Tippah				
1969	32.6	19.5	33.3	14.5
1964	44.7	20.6	21.2	13.5
Tishomingo				
1969	27.8	21.1	36.3	14.7
1964	32.9	22.7	28.8	15.6
Tunica				
1969	69.3	12.2	9.6	8.9
1964	62.0	30.1	1.6	6.2
Union				
1969	35.0	15.9	34.9	14.2
1964	41.5	20.2	25.3	12.9
Walthall				
1969	33.5	21.2	28.6	16.6
1964	28.1	24.4	29.3	18.3
Warren				
1969	41.9	8.2	31.1	18.8
1964	20.7	18.7	39.7	21.0
Washington				
1969	67.5	8.7	13.0	10.6
1964	68.1	17.0	7.7	7.2
Wayne				
1969	32.3	18.2	30.0	19.6
1964	19.3	22.8	36.2	21.7
Webster				
1969	37.6	14.5	34.8	13.0
1964	32.6	25.6	25.0	16.8
Wilkinson				
1969	36.7	18.2	26.2	18.9
1964	15.4	31.8	30.3	22.5
Winston				
1969	29.7	18.2	33.5	18.6
1964	27.5	26.5	26.2	19.7
Yalobusha				
1969	31.0	18.2	29.7	21.0
1964	35.4	24.5	20.2	19.9
Yazoo				
1969	50.7	11.2	23.3	14.8
1964	44.3	25.5	17.2	13.1

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Part 33, Section 2, Table 4; Volume 2, Chapter 7, Table 14; 1964, Volume 2, Chapter 6 Tables 12, and 13.

TABLE 45. SELECTED EQUIPMENT AND LABOR USE ON COMMERCIAL FARMS*, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area And Year	Total Number Class 1-5 Farms(1)	Number of Economic Class 1-5 Farms With					
		One or More Automobiles	One or More Trucks	One or More Farm Tractors	Hired Farm Labor	Contract Labor(2)	Machine Hire and Customwork
United States							
1969	1,733,683	1,412,391	1,425,867	1,543,425	1,069,095	138,551	1,052,442
1964	1,817,440	1,645,773	1,439,972	1,645,960	1,204,905	---	---
South							
1969	583,179	409,588	471,997	496,022	390,546	60,757	324,338
1964	584,424	481,289	451,810	482,374	433,156	---	325,261
E.S.C.(3)							
1969	163,963	115,134	129,210	141,450	112,539	11,453	90,086
1964	174,361	138,405	126,095	139,346	124,523	---	97,367
Mississippi							
1969	27,100	18,335	22,595	23,696	18,499	2,327	14,128
1964	36,013	26,002	24,893	25,134	23,381	NA	18,231
Adams							
1969	88	45	70	74	67	9	19
1964	40	22	30	28	34	NA	13
Alcorn							
1969	379	260	309	338	211	24	226
1964	563	409	363	453	392	NA	336
Amite							
1969	383	281	308	337	254	38	213
1964	353	279	269	288	224	NA	163
Attala							
1969	344	222	291	301	233	23	158
1964	491	323	352	282	272	NA	182
Benton							
1969	272	174	231	239	180	24	154
1964	438	296	256	260	249	NA	223
Bolivar							
1969	689	515	612	653	631	103	426
1964	1,210	947	880	902	899	NA	745
Calhoun							
1969	548	345	457	484	334	24	334
1964	683	434	526	533	420	NA	538
Carroll							
1969	333	209	269	295	238	21	147
1964	400	314	302	293	299	NA	152
Chickasaw							
1969	342	248	296	318	226	21	193
1964	530	414	345	388	306	NA	260
Choctaw							
1969	159	107	134	138	97	14	84
1964	172	117	139	149	89	NA	75
Claiborne							
1969	150	105	127	135	116	15	80
1964	166	134	118	135	125	NA	70

* See Table 44 for a complete definition of these classes.

(1) Commercial classes 1-5 include farms selling $2,500 or more of farm products in 1969 (or less if normally selling at least this amount).

(2) In 1964, contract labor was counted with machine hire and customwork.

(3) East South Central

Table 45.-(continued)

Area And Year	Total Number Class 1-5 Farms(1)	Number of Economic Class 1-5 Farms With					
		One or More Automobiles	One or More Trucks	One or More Farm Tractors	Hired Farm Labor	Contract Labor(2)	Machine Hire and Customwork
Clarke							
1969	154	113	136	133	88	11	75
1964	165	140	139	126	112	NA	75
Clay							
1969	246	164	210	217	169	15	111
1964	299	198	214	234	176	NA	134
Coahoma							
1969	402	290	352	370	376	45	236
1964	711	491	367	425	401	NA	548
Copiah							
1969	372	263	315	315	229	29	157
1964	370	292	315	295	287	NA	189
Covington							
1969	272	213	204	221	174	37	127
1964	319	232	239	226	235	NA	165
De Soto							
1969	357	232	293	314	269	35	175
1964	686	457	518	414	430	NA	329
Forrest							
1969	155	98	133	138	94	16	57
1964	129	109	125	116	91	NA	38
Franklin							
1969	85	60	66	72	50	7	34
1964	86	67	64	65	66	NA	43
George							
1969	190	125	165	166	84	13	91
1964	129	96	119	118	72	NA	64
Greene							
1969	128	78	114	100	62	9	45
1964	103	69	80	80	46	NA	27
Grenada							
1969	230	147	206	211	156	10	126
1964	326	248	183	174	199	NA	147
Hancock							
1969	68	47	55	54	41	6	31
1964	64	50	48	60	51	NA	28
Harrison							
1969	89	53	75	66	48	11	24
1964	65	57	43	59	31	NA	8
Hinds							
1969	640	363	489	542	461	87	322
1964	520	405	354	357	341	NA	204
Holmes							
1969	423	279	347	368	345	29	244
1964	605	452	428	423	448	NA	313
Humphreys							
1969	376	264	340	344	322	32	216
1964	526	370	370	391	450	NA	329
Issaquena							
1969	120	89	102	106	93	14	72
1964	130	96	118	130	101	NA	98
Itawamba							
1969	384	249	310	328	184	14	201
1964	497	324	346	373	266	NA	273

Table 45.-(continued)

Area And Year	Total Number Class 1-5 Farms(1)	Number of Economic Class 1-5 Farms With: One or More Automobiles	One or More Trucks	One or More Farm Tractors	Hired Farm Labor	Contract Labor(2)	Machine Hire and Customwork
Jackson							
1969	67	44	57	49	23	4	18
1964	48	48	38	42	30	NA	18
Jasper							
1969	306	222	248	262	183	34	169
1964	197	139	151	147	127	NA	73
Jefferson							
1969	156	109	130	134	118	12	59
1964	124	98	113	106	102	NA	36
Jefferson Davis							
1969	289	184	230	237	201	23	135
1964	406	292	324	258	322	NA	186
Jones							
1969	509	348	418	416	282	53	222
1964	409	333	321	333	248	NA	206
Kemper							
1969	321	180	266	265	209	31	159
1964	293	181	200	180	168	NA	96
Lafayette							
1969	332	207	263	298	211	21	184
1964	511	300	376	384	267	NA	222
Lamar							
1969	152	101	127	130	78	14	78
1964	167	105	127	133	114	NA	62
Lauderdale							
1969	203	130	168	168	126	10	76
1964	168	118	144	120	120	NA	64
Lawrence							
1969	159	98	130	124	103	11	70
1964	200	105	137	117	137	NA	100
Leake							
1969	484	323	399	421	306	31	224
1964	649	415	451	455	401	NA	251
Lee							
1969	489	346	384	450	300	38	286
1964	692	557	435	511	472	NA	363
Leflore							
1969	351	254	310	332	305	25	204
1964	632	532	364	396	496	NA	375
Lincoln							
1969	307	229	255	264	162	35	159
1964	264	248	220	215	149	NA	161
Lowndes							
1969	340	266	287	307	230	29	170
1964	335	297	265	292	242	NA	148
Madison							
1969	445	271	330	367	335	42	206
1964	694	498	380	386	460	NA	316
Marion							
1969	265	188	218	230	188	25	139
1964	344	269	237	238	198	NA	171
Marshall							
1969	419	231	336	348	318	31	234
1964	987	549	541	442	500	NA	439
Monroe							
1969	514	359	450	464	325	34	273
1964	628	505	470	468	405	NA	324

Table 45.-(continued)

Area And Year	Total Number Class 1-5 Farms(1)	Number of Economic Class 1-5 Farms With					
		One or More Automobiles	One or More Trucks	One or More Farm Tractors	Hired Farm Labor	Contract Labor(2)	Machine Hire and Customwork
Montgomery							
1969	269	169	214	227	158	13	137
1964	362	303	244	264	239	NA	142
Neshoba							
1969	373	254	315	313	236	23	190
1964	490	340	363	341	331	NA	213
Newton							
1969	346	227	302	309	231	30	122
1964	375	294	315	314	270	NA	187
Noxubee							
1969	402	280	340	346	292	30	213
1964	511	380	322	299	330	NA	237
Oktibbeha							
1969	283	176	217	226	185	25	97
1964	315	206	256	246	201	NA	132
Panola							
1969	630	395	512	565	465	42	345
1964	1,232	881	719	656	699	NA	552
Pearl River							
1969	248	160	198	214	142	33	82
1964	279	212	223	258	184	NA	125
Perry							
1969	108	65	86	90	65	11	46
1964	117	82	101	103	75	NA	50
Pike							
1969	259	200	215	221	166	20	134
1964	285	235	175	197	172	NA	140
Pontotoc							
1969	555	337	454	491	296	31	331
1964	794	479	558	704	615	NA	534
Prentiss							
1969	516	369	442	458	250	18	345
1964	743	537	510	584	432	NA	437
Quitman							
1969	400	290	346	371	338	28	227
1964	1,048	771	537	556	541	NA	542
Rankin							
1969	449	293	356	383	306	49	205
1964	411	309	321	325	334	NA	215
Scott							
1969	516	326	404	431	307	55	249
1964	499	353	317	373	310	NA	263
Sharkey							
1969	196	156	180	192	172	17	117
1964	252	198	171	203	165	NA	184
Simpson							
1969	433	273	342	355	287	30	137
1964	502	324	416	337	374	NA	216
Smith							
1969	543	388	477	440	355	46	238
1964	597	453	499	439	387	NA	255
Stone							
1969	95	63	80	83	59	13	39
1964	86	63	66	67	49	NA	19
Sunflower							
1969	640	492	566	608	583	87	399
1964	1,170	965	681	773	771	NA	723

Table 45.-(continued)

Area And Year	Total Number Class 1-5 Farms(1)	Number of Economic Class 1-5 Farms With: One or More Automobiles	One or More Trucks	One or More Farm Tractors	Hired Farm Labor	Contract Labor(2)	Machine Hire and Customwork
Tallahatchie							
1969	525	368	450	485	423	45	292
1964	865	517	498	486	432	NA	312
Tate							
1969	507	335	426	419	406	44	310
1964	820	514	453	394	500	NA	408
Tippah							
1969	458	299	373	400	262	27	302
1964	765	582	564	605	551	NA	459
Tishomingo							
1969	240	169	196	211	103	20	120
1964	351	246	289	309	199	NA	182
Tunica							
1969	210	158	200	194	172	18	131
1964	529	376	253	232	297	NA	244
Union							
1969	467	334	380	411	282	28	297
1964	671	516	481	563	494	NA	503
Walthall							
1969	471	371	406	409	328	81	298
1964	495	374	381	333	343	NA	266
Warren							
1969	163	107	140	151	115	13	67
1964	124	99	102	110	103	NA	54
Washington							
1969	441	332	411	414	392	58	252
1964	541	457	449	488	467	NA	319
Wayne							
1969	231	142	188	183	127	18	97
1964	244	149	214	165	178	NA	68
Webster							
1969	309	196	259	280	185	23	192
1964	369	257	294	314	217	NA	217
Wilkinson							
1969	175	110	136	150	149	29	80
1964	127	91	94	90	100	NA	39
Winston							
1969	382	244	334	338	253	28	166
1964	492	263	355	321	240	NA	138
Yalobusha							
1969	242	162	203	212	180	16	116
1964	357	251	245	224	245	NA	137
Yazoo							
1969	532	367	455	473	394	39	312
1964	671	494	483	461	466	NA	336

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Parts 22-37, Section 2, Tables 14 and 15; Volume 2, Chapter 4, Part 1, Tables 17 and 18; Part 3, Tables 37, 38 and 39.

TABLE 46. COMMERCIAL FARMS*, BY VALUE OF ALL AGRICULTURAL PRODUCTS SOLD, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area And Year	Percent of all Commerical Farms Selling Products Valued At					
	$40,000 and over	$20,000 -39,999	$10,000 -19,999	$5,000 -9,999	$2,500 -4,999	$50 -2,499
United States						
1969	11.5	17.2	20.5	20.3	20.5	10.0
1964	6.6	12.0	21.6	23.3	20.5	16.1
South						
1969	9.0	10.8	14.6	20.8	26.8	17.9
1964	5.6	8.0	13.7	19.9	24.0	28.7
E.S.C.(1)						
1969	5.5	8.0	12.1	20.5	28.6	25.2
1964	3.0	4.6	9.4	18.1	28.1	36.8
Mississippi						
1969	10.3	8.5	9.8	15.3	25.9	30.1
1964	6.1	4.9	7.3	13.7	26.4	41.7
Adams						
1969	7.8	10.1	10.1	10.1	30.2	31.8
1964	1.7	4.0	7.3	6.2	17.5	63.3
Alcorn						
1969	1.9	4.1	8.0	19.8	30.5	35.8
1964	0.9	1.8	8.1	17.6	33.9	37.7
Amite						
1969	5.5	10.2	13.8	14.5	22.0	34.1
1964	1.8	5.2	9.8	13.5	15.6	54.1
Attala						
1969	2.4	6.5	8.2	14.5	27.1	41.3
1964	1.2	2.2	6.0	12.7	26.3	51.6
Benton						
1969	4.6	8.7	14.5	19.4	27.0	25.7
1964	1.1	3.3	8.2	18.2	34.6	34.6
Bolivar						
1969	21.6	14.3	8.9	14.3	23.9	17.0
1964	20.7	7.4	8.6	16.4	28.4	18.5
Calhoun						
1969	3.1	6.6	12.7	20.8	31.7	25.0
1964	2.0	4.6	11.1	22.7	29.8	29.8
Carroll						
1969	6.0	7.2	10.3	13.6	31.5	31.3
1964	3.7	3.4	7.0	12.8	31.7	41.4
Chickasaw						
1969	6.0	8.4	11.2	20.5	27.6	26.1
1964	2.6	3.8	7.8	15.7	29.1	41.0
Choctaw						
1969	1.0	2.8	5.2	17.8	28.6	44.6
1964	0.2	1.9	2.3	13.2	22.2	60.3
Claiborne						
1969	7.9	5.6	13.1	22.9	20.6	29.9
1964	3.5	5.7	6.9	14.2	22.0	47.7
Clarke						
1969	2.2	3.7	9.6	14.8	26.6	43.2
1964	1.1	2.5	5.3	8.5	20.4	62.2

* See footnote, Table 44 for definition.
(1) East South Central

Table 46.-(continued)

Area And Year	Percent of all Commerical Farms Selling Products Valued At					
	$40,000 and over	$20,000 -39,999	$10,000 -19,999	$5,000 -9,999	$2,500 -4,999	$50 -2,499
Clay						
1969	5.5	10.5	12.7	16.0	23.1	32.2
1964	1.8	2.7	6.0	13.7	25.8	50.0
Coahoma						
1969	35.8	12.8	11.2	11.9	20.4	7.8
1964	19.6	4.1	5.7	12.3	31.6	26.7
Copiah						
1969	4.9	7.2	10.5	18.6	26.0	32.7
1964	4.1	4.1	8.3	8.4	21.4	53.7
Covington						
1969	13.1	6.0	3.6	11.2	20.7	45.4
1964	3.5	6.6	6.2	9.8	20.6	53.3
De Soto						
1969	11.8	11.8	9.6	14.7	24.9	27.1
1964	5.6	6.0	7.1	12.0	31.1	38.2
Forrest						
1969	8.6	11.0	8.1	17.1	29.0	26.2
1964	5.5	5.9	10.2	13.6	19.5	45.3
Franklin						
1969	2.0	3.3	9.8	15.0	25.5	44.4
1964	0.9	1.8	5.4	7.7	16.3	67.9
George						
1969	4.0	7.7	10.2	17.5	29.9	30.7
1964	0.7	3.3	7.4	10.7	25.5	52.4
Greene						
1969	9.7	10.8	8.1	13.5	27.0	30.8
1964	2.8	5.6	6.6	7.4	13.6	64.0
Grenada						
1969	7.7	9.0	8.3	15.7	30.2	29.0
1964	5.0	5.4	8.4	15.3	36.2	29.7
Hancock						
1969	--	12.5	10.7	18.8	18.8	39.3
1964	0.6	4.3	15.4	9.9	17.3	52.5
Harrison						
1969	3.1	5.5	11.8	16.5	33.1	29.9
1964	2.8	3.6	9.2	10.6	12.8	61.0
Hinds						
1969	4.5	5.9	9.8	18.9	33.9	26.9
1964	2.6	3.4	3.4	9.4	22.7	58.5
Holmes						
1969	9.0	5.6	8.3	11.4	25.1	40.6
1964	6.5	3.7	5.7	10.5	26.2	47.4
Humphreys						
1969	17.7	13.1	13.3	15.1	24.2	16.6
1964	19.6	7.9	10.7	18.1	28.8	14.9
Issaquena						
1969	30.9	11.8	9.6	22.8	13.2	11.8
1964	23.7	10.3	10.3	25.6	13.5	16.6
Itawamba						
1969	7.8	7.1	8.7	18.4	26.0	32.2
1964	1.7	7.3	8.5	17.6	27.9	37.0
Jackson						
1969	1.1	10.2	9.1	14.8	40.9	23.9
1964	2.3	3.1	7.0	7.7	22.3	57.7
Jasper						
1969	5.4	5.8	7.3	14.9	30.1	36.5
1964	1.7	2.7	4.5	6.8	14.1	70.2

Table 46.-(continued)

Area And Year	Percent of all Commerical Farms Selling Products Valued At					
	$40,000 and over	$20,000 -39,999	$10,000 -19,999	$5,000 -9,999	$2,500 -4,999	$50 -2,499
Jefferson						
1969	3.7	4.9	11.8	17.6	25.7	36.3
1964	1.3	3.7	5.7	10.8	20.2	58.3
Jefferson Davis						
1969	4.7	3.1	7.0	14.0	21.7	49.5
1964	2.6	1.7	5.0	10.4	26.1	54.2
Jones						
1969	31.1	11.1	6.7	12.1	17.8	21.2
1964	9.5	11.3	9.6	7.2	14.9	47.5
Kemper						
1969	1.2	3.8	6.7	16.6	35.2	36.6
1964	0.4	0.7	1.9	9.2	25.7	62.1
Lafayette						
1969	3.9	5.6	8.7	20.4	33.4	28.0
1964	1.9	3.2	7.7	18.0	32.7	36.5
Lamar						
1969	6.5	2.4	7.8	15.5	29.8	38.0
1964	3.3	6.2	7.7	7.4	18.2	57.2
Lauderdale						
1969	2.6	3.6	5.8	19.1	34.6	34.3
1964	1.5	1.5	4.1	8.7	20.0	64.2
Lawrence						
1969	1.5	3.0	6.1	12.2	25.5	51.7
1964	1.0	1.5	3.4	7.8	24.2	62.1
Leake						
1969	14.7	5.7	7.2	12.4	23.7	36.3
1964	5.4	5.8	5.8	10.8	24.0	48.2
Lee						
1969	7.0	11.7	10.5	16.5	28.5	25.8
1964	3.9	5.9	8.6	15.0	31.2	35.4
Leflore						
1969	34.4	13.1	11.6	12.1	17.1	11.8
1964	21.8	6.7	5.8	14.6	27.0	24.1
Lincoln						
1969	7.8	15.9	9.9	10.4	26.7	29.3
1964	2.1	5.5	12.3	9.8	15.6	54.7
Lowndes						
1969	6.1	8.6	10.4	15.9	24.2	34.7
1964	3.3	7.0	8.3	10.8	21.3	49.3
Madison						
1969	9.4	5.7	9.7	13.5	28.3	33.4
1964	3.7	4.3	5.7	12.0	30.2	44.1
Marion						
1969	6.0	10.0	6.0	10.5	24.1	43.4
1964	1.1	3.0	6.5	9.3	22.0	58.1
Marshall						
1969	6.3	5.9	6.8	13.9	24.8	42.2
1964	2.6	3.6	4.9	15.4	38.5	35.0
Monroe						
1969	5.1	10.6	11.3	16.5	27.2	29.3
1964	3.5	5.8	7.6	14.2	24.8	44.1
Montgomery						
1969	4.6	5.9	9.8	18.3	30.6	30.8
1964	1.7	3.2	7.9	18.7	31.9	36.6
Neshoba						
1969	4.2	5.6	5.5	13.2	31.5	40.0
1964	0.7	2.8	3.4	10.2	29.7	53.2

Table 46.-(continued)

Area And Year	Percent of all Commerical Farms Selling Products Valued At					
	$40,000 and over	$20,000 -39,999	$10,000 -19,999	$5,000 -9,999	$2,500 -4,999	$50 -2,499
Newton						
1969	10.7	9.9	7.6	13.4	25.6	32.8
1964	6.1	5.6	9.9	11.3	16.7	50.4
Noxubee						
1969	9.0	14.6	12.1	9.3	25.7	29.3
1964	1.5	3.9	6.5	10.1	21.8	56.2
Oktibbeha						
1969	10.4	10.7	8.6	16.2	25.9	28.2
1964	2.0	5.8	9.7	11.7	22.8	48.0
Panola						
1969	7.5	8.4	11.4	16.1	27.9	28.7
1964	4.3	4.1	5.7	15.3	39.0	31.6
Pearl River						
1969	5.0	10.0	10.9	14.1	32.8	27.3
1964	4.9	8.0	13.8	14.2	16.5	42.6
Perry						
1969	16.0	13.7	11.4	8.0	12.6	38.3
1964	2.7	6.1	8.8	8.4	13.5	60.5
Pike						
1969	5.8	14.3	17.0	13.5	18.0	31.3
1964	1.3	5.0	11.1	12.6	17.3	52.7
Pontotoc						
1969	3.1	6.6	9.4	17.8	29.4	33.6
1964	1.9	4.7	9.3	19.6	28.9	35.6
Prentiss						
1969	3.6	7.0	9.0	18.2	36.2	26.0
1964	1.3	3.6	8.5	23.9	30.5	32.2
Quitman						
1969	17.9	15.4	16.3	14.0	19.8	16.7
1964	11.3	6.1	7.8	18.4	36.3	20.1
Rankin						
1969	20.4	10.4	8.3	16.5	20.8	23.5
1964	14.7	7.6	8.6	11.0	14.8	43.3
Scott						
1969	19.6	9.0	8.8	16.4	21.0	25.2
1964	14.6	10.2	7.1	8.6	15.0	44.5
Sharkey						
1969	36.8	14.8	14.8	7.7	19.6	6.2
1964	25.3	6.8	7.8	21.5	24.6	14.0
Simpson						
1969	24.0	5.9	6.4	9.6	21.5	32.7
1964	17.9	9.8	5.4	7.8	18.3	40.8
Smith						
1969	29.5	11.1	5.8	8.4	16.4	28.9
1964	17.2	14.9	10.1	7.1	14.1	36.6
Stone						
1969	4.4	9.7	23.9	16.8	29.2	15.9
1964	1.3	4.3	10.0	20.6	16.3	47.5
Sunflower						
1969	24.6	14.6	16.1	16.2	19.5	9.1
1964	18.3	8.9	7.7	16.9	29.4	18.8
Tallahatchie						
1969	17.7	14.9	12.5	14.9	23.1	16.9
1964	10.9	5.2	7.1	16.6	32.9	27.3
Tate						
1969	6.9	9.6	12.4	16.7	29.2	25.2
1964	2.9	4.0	7.7	15.8	34.4	35.2

Table 46.-(continued)

Area And Year	Percent of all Commerical Farms Selling Products Valued At					
	$40,000 and over	$20,000 -39,999	$10,000 -19,999	$5,000 -9,999	$2,500 -4,999	$50 -2,499
Tippah						
1969	3.1	4.1	9.7	15.6	30.1	37.4
1964	1.3	3.3	7.1	22.4	34.3	31.6
Tishomingo						
1969	2.6	4.3	8.3	13.7	28.0	43.1
1964	2.2	3.9	7.9	17.7	27.5	40.8
Tunica						
1969	35.2	10.1	9.3	8.9	21.5	15.0
1964	10.9	2.3	3.8	12.1	38.2	32.7
Union						
1969	2.8	5.4	11.3	19.6	29.6	31.2
1964	1.2	4.3	9.4	21.3	31.1	32.7
Walthall						
1969	5.1	10.7	13.3	12.9	19.4	38.8
1964	1.2	3.4	11.1	15.4	22.5	46.5
Warren						
1969	12.8	8.2	8.2	23.1	31.3	16.4
1964	8.9	6.4	6.4	14.8	16.1	47.4
Washington						
1969	38.6	12.0	10.4	11.0	16.5	11.4
1964	31.1	9.3	8.6	13.0	18.0	20.0
Wayne						
1969	12.5	8.3	5.3	15.2	22.7	36.0
1964	5.3	6.6	9.0	7.3	17.7	54.1
Webster						
1969	1.9	4.4	12.1	25.5	28.3	27.8
1964	1.1	2.7	8.7	16.7	26.9	43.9
Wilkinson						
1969	8.4	11.5	12.2	19.1	15.6	33.2
1964	1.3	2.3	6.9	7.7	14.4	67.4
Winston						
1969	1.3	4.4	8.4	17.5	30.4	38.0
1964	0.2	1.7	4.5	13.5	31.1	49.0
Yalobusha						
1969	3.6	6.3	9.1	13.8	30.2	37.0
1964	2.5	4.1	6.0	17.2	29.3	40.9
Yazoo						
1969	14.5	12.2	12.0	16.5	26.8	18.2
1964	10.3	4.7	6.5	13.5	28.5	36.5

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 2, Chapter 7, Table 13; Volume 1, Parts 21-37, Section 2, Tables 4(Washington, D.C.: USGPO); Stacey, William A., et al., editors, Mississippi Counties; Some Social and Economic Aspects, Third Edition, Sociology and Rural Life Series No. 18 (State College, Mississippi: Agricultural Experiment Station and Cooperative Extension Service, 1966), pp. 100-105.

TABLE 47.-FARMS, BY SELECTED TYPE OF PRODUCT SOLD(1), UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 AND 1964.

Area	Number of Farms Which Have Income Predominantly From					
	Cash Grain	Cotton	Poultry	Dairy	Livestock	General Farming
United States						
1969(2)	369,312	40,534	57,545	260,956	568,201	126,527
1964(2)	404,253	164,076	82,120	366,967	514,529	201,980
South						
1969	68,190	36,819	37,887	42,456	162,253	53,491
1964	66,438	154,336	46,998	57,982	133,445	78,779
E.S.C.(3)						
1969	12,344	10,561	9,468	19,045	60,802	18,608
1964	12,785	73,835	11,288	25,619	47,402	27,198
Mississippi						
1969	3,424	5,558	2,175	2,811	9,501	2,574
1964	2,968	35,573	2,861	4,061	9,254	3,063
Adams						
1969	6	2	--	1	70	3
1964	14	29	3	3	83	9
Alcorn						
1969	43	101	2	56	112	57
1964	53	603	14	52	78	59
Amite						
1969	11	2	2	144	103	13
1964	30	233	5	170	193	59
Attala						
1969	19	75	--	42	161	29
1964	32	610	3	118	164	40
Benton						
1969	12	98	2	12	90	46
1964	18	543	1	12	60	24
Bolivar						
1969	200	427	1	--	5	39
1964	77	1,373	4	3	17	2
Calhoun						
1969	115	70	2	28	162	127
1964	41	578	5	42	105	116
Carroll						
1969	28	52	--	18	179	39
1964	15	462	2	10	140	25
Chickasaw						
1969	60	19	4	40	122	55
1964	28	478	17	89	124	85
Choctaw						
1969	13	8	3	26	79	19
1964	32	149	7	75	83	47
Claiborne						
1969	9	7	3	3	118	8
1964	10	139	5	1	117	15
Clarke						
1969	4	11	5	11	106	9
1964	54	107	20	12	134	41
Clay						
1969	36	10	4	50	113	27
1964	18	294	5	116	104	37
Coahoma						
1969	51	317	--	--	12	17
1964	13	939	2	1	9	--
Copiah						
1969	8	18	19	49	233	17
1964	27	249	50	49	256	73

(1) Excluded from this tabulation are farms typed by other field crops, vegetable fruit and nut, and miscellaneous. State totals for these types for 1969 and 1964 in the order listed were 187 and 294; 143 and 302; 82 and 376; 645 and 50,389. To be classes as a particular type of farm, at least 50% of value of farm products must come from this source.

(2) 1969 data is for class 1-5 farms and 1964 data is for all commercial farms.

(3) East South Central.

Table 47.-(continued)

Area	Number of Farms Which Have Income Predominantly From					
	Cash Grain	Cotton	Poultry	Dairy	Livestock	General Farming
Covington						
1969	15	15	82	8	121	16
1964	50	270	77	15	137	70
De Soto						
1969	52	76	3	83	98	30
1964	37	835	5	109	75	25
Forrest						
1969	10	--	25	16	78	10
1964	14	24	33	20	76	18
Franklin						
1969	2	1	3	13	57	6
1964	24	11	3	9	113	16
George						
1969	65	--	4	18	84	11
1964	53	7	12	21	99	27
Greene						
1969	6	--	35	2	63	8
1964	31	29	45	3	83	26
Grenada						
1969	18	65	4	8	100	33
1964	7	353	5	1	76	12
Hancock						
1969	5	--	1	19	30	--
1964	10	--	6	33	31	18
Harrison						
1969	4	--	9	12	45	4
1964	4	--	9	15	48	10
Hinds						
1969	25	65	8	11	452	39
1964	25	787	18	1	291	47
Holmes						
1969	65	145	1	9	132	63
1964	23	908	5	4	131	24
Humphreys						
1969	156	187	--	--	5	24
1964	37	567	1	--	5	6
Issaquena						
1969	58	48	--	--	6	7
1964	23	120	--	--	8	2
Itawamba						
1969	42	64	91	21	121	35
1964	62	338	144	31	105	47
Jackson						
1969	14	--	3	6	32	3
1964	11	--	10	9	54	3
Jasper						
1969	2	3	46	24	203	13
1964	63	212	37	21	197	58
Jefferson						
1969	14	3	4	8	108	4
1964	20	99	5	3	136	13
Jefferson Davis						
1969	28	19	43	18	136	26
1964	38	559	36	7	135	64
Jones						
1969	10	11	268	29	153	16
1964	76	121	194	43	204	39
Kemper						
1969	12	26	--	23	200	39
1964	39	422	1	17	173	60
Lafayette						
1969	10	90	11	17	150	46
1964	20	576	30	10	97	36
Lamar						
1969	9	2	19	9	87	6
1964	38	73	43	12	119	28
Lauderdale						
1969	7	6	1	8	139	24
1964	36	132	7	10	161	43

Table 47.-(continued)

Area	Number of Farms Which Have Income Predominantly From					
	Cash Grain	Cotton	Poultry	Dairy	Livestock	General Farming
Lawrence						
1969	14	13	6	13	89	11
1964	55	228	9	22	136	35
Leake						
1969	7	71	164	46	142	32
1964	47	715	173	75	152	32
Lee						
1969	117	99	28	71	95	74
1964	79	639	58	105	73	72
Leflore						
1969	149	150	2	--	15	28
1964	39	767	4	--	9	4
Lincoln						
1969	11	--	7	118	145	12
1964	35	48	10	138	225	52
Lowndes						
1969	36	67	2	31	129	53
1964	20	396	7	76	89	49
Madison						
1969	27	108	9	23	217	53
1964	22	949	11	17	174	36
Marion						
1969	1	12	12	64	142	19
1964	46	351	17	83	180	50
Marshall						
1969	29	153	--	56	116	52
1964	20	1,318	--	28	100	33
Monroe						
1969	82	163	8	29	143	77
1964	56	739	14	68	130	68
Montgomery						
1969	7	58	5	26	121	49
1964	13	353	6	37	111	26
Neshoba						
1969	2	49	20	79	192	20
1964	76	405	19	161	226	84
Newton						
1969	6	6	53	93	160	11
1964	75	137	75	176	179	53
Noxubee						
1969	57	16	1	121	169	35
1964	16	767	2	171	127	50
Oktibbeha						
1969	16	2	--	132	107	13
1964	17	95	12	334	73	47
Panola						
1969	143	143	6	25	208	88
1964	80	1,146	13	16	170	44
Pearl River						
1969	13	--	4	43	138	13
1964	17	1	14	82	106	24
Perry						
1969	7	2	50	5	32	5
1964	28	36	47	2	98	23
Pike						
1969	15	2	5	128	92	7
1964	33	144	18	141	141	49
Pontotoc						
1969	110	123	43	71	107	93
1964	44	741	73	140	100	80
Prentiss						
1969	119	105	6	87	86	99
1964	65	695	24	115	53	91
Quitman						
1969	126	251	--	--	12	11
1964	75	1,215	2	--	6	6

Table 47.-(continued)

Area	Number of Farms Which Have Income Predominantly From					
	Cash Grain	Cotton	Poultry	Dairy	Livestock	General Farming
Rankin						
1969	18	40	141	26	194	15
1964	27	213	180	22	189	41
Scott						
1969	6	36	123	13	204	17
1964	39	306	292	20	167	29
Sharkey						
1969	117	67	--	--	2	10
1964	40	238	1	--	4	2
Simpson						
1969	5	28	182	27	148	27
1964	36	274	235	21	161	52
Smith						
1969	4	17	329	14	150	12
1964	30	174	402	6	204	54
Stone						
1969	7	--	5	9	57	7
1964	3	2	9	19	69	20
Sunflower						
1969	111	460	3	1	20	38
1964	32	1,350	14	2	18	4
Tallahatchie						
1969	186	192	2	3	73	62
1964	67	971	2	7	87	17
Tate						
1969	26	137	--	75	187	76
1964	20	996	6	68	141	17
Tippah						
1969	22	93	33	82	145	80
1964	35	710	34	105	99	90
Tishomingo						
1969	6	61	17	12	102	40
1964	30	347	44	17	62	48
Tunica						
1969	115	80	--	--	4	11
1964	28	743	1	--	5	4
Union						
1969	90	81	17	85	100	86
1964	60	557	29	149	95	72
Walthall						
1969	19	20	--	201	198	20
1964	22	396	11	242	186	33
Warren						
1969	27	14	3	3	90	11
1964	7	90	8	3	81	24
Washington						
1969	141	246	3	--	26	19
1964	78	539	6	--	25	16
Wayne						
1969	3	8	74	7	112	12
1964	61	143	95	4	142	23
Webster						
1969	33	56	--	28	126	58
1964	35	331	2	57	130	45
Wilkinson						
1969	14	--	--	7	111	13
1964	30	94	1	2	123	35
Winston						
1969	6	57	2	95	170	35
1964	50	494	5	163	136	61
Yalobusha						
1969	19	84	--	18	86	29
1964	19	411	4	18	91	21

Table 47.-(continued)

Area	Number of Farms Which Have Income Predominantly From					
	Cash Grain	Cotton	Poultry	Dairy	Livestock	General Farming
Yazoo						
1969	111	145	2	2	184	73
1964	58	771	3	2	163	23

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Sec. 1, Chapter 3, Table 6; Volume 2, Chapter 8, Table 16; 1964, Volume 1, Part 33, Table 6; Volume II, Chapter 10 (Washington, D.C.: USGPO), Table 2.

TABLE 48. SOURCES OF FARM INCOME FOR ALL FARMS, UNITED STATES, SOUTH, EAST SOUTH CENTRAL, MISSISSIPPI AND MISSISSIPPI BY COUNTIES, 1969 and 1964.

Area And Year	Number of Farms With Income From					
	Crop Sales	Forest Product Sales	Livestock Sales	Customwork	Recreational Services	Government Farm Programs
United States						
1969	1,849,873	97,372	1,939,351	306,760	30,431	1,130,541
1964	NA	NA	NA	NA	27,904	NA
South						
1969	713,560	54,492	795,828	93,177	15,741	429,659
1964	NA	78,653	NA	NA	14,130	NA
E. S. C (1)						
1969	237,072	22,162	265,692	27,781	3,051	149,436
1964	NA	30,210	NA	NA	1,941	NA
Mississippi						
1969	39,526	7,272	49,382	5,365	764	32,015
1964	NA	9,156	NA	NA	342	NA
Adams						
1969	102	35	251	15	2	70
1964	NA	37	NA	NA	5	NA
Alcorn						
1969	919	71	608	78	13	681
1964	NA	95	NA	NA	2	NA
Amite						
1969	378	177	887	67	9	407
1964	NA	297	NA	NA	2	NA
Attala						
1969	636	158	892	57	3	515
1964	NA	166	NA	NA	2	NA
Benton						
1969	529	57	426	64	14	362
1964	NA	47	NA	NA	4	NA
Bolivar						
1969	1,018	6	196	130	21	724
1964	NA	11	NA	NA	3	NA
Calhoun						
1969	849	97	770	98	9	592
1964	NA	119	NA	NA	8	NA
Carroll						
1969	420	66	581	47	7	339
1964	NA	62	NA	NA	2	NA
Chickasaw						
1969	576	50	630	64	7	458
1964	NA	100	NA	NA	2	NA
Choctaw						
1969	295	113	467	47	6	271
1964	NA	143	NA	NA	2	NA
Claiborne						
1969	209	70	332	36	10	117
1964	NA	81	NA	NA	2	NA
Clarke						
1969	226	96	535	27	6	306
1964	NA	194	NA	NA	4	NA
Clay						
1969	369	49	550	50	6	313
1964	NA	74	NA	NA	6	NA

(1) East South Central

Table 48.-(continued)

Area And Year	Number of Farms With Income From: Crop Sales	Forest Product Sales	Livestock Sales	Customwork	Recreational Services	Government Farm Programs
Coahoma						
1969	503	9	126	86	7	386
1964	NA	13	NA	NA	2	NA
Copiah						
1969	421	146	928	50	5	397
1964	NA	187	NA	NA	2	NA
Covington						
1969	455	140	702	56	3	366
1964	NA	130	NA	NA	2	NA
De Soto						
1969	632	22	661	71	4	471
1964	NA	32	NA	NA	4	NA
Forrest						
1969	156	59	378	26	15	133
1964	NA	69	NA	NA	2	NA
Franklin						
1969	78	70	328	16	4	98
1964	NA	115	NA	NA	3	NA
George						
1969	256	49	317	23	3	118
1964	NA	49	NA	NA	3	NA
Greene						
1969	117	68	334	26	5	120
1964	NA	108	NA	NA	--	NA
Grenada						
1969	333	23	408	51	12	265
1964	NA	51	NA	NA	1	NA
Hancock						
1969	45	38	168	6	3	86
1964	NA	52	NA	NA	6	NA
Harrison						
1969	86	38	227	11	3	55
1964	NA	22	NA	NA	--	NA
Hinds						
1969	703	112	1,282	110	17	519
1964	NA	147	NA	NA	5	NA
Holmes						
1969	826	147	819	93	15	549
1964	NA	158	NA	NA	5	NA
Humphreys						
1969	531	14	154	81	12	356
1964	NA	19	NA	NA	4	NA
Issaquena						
1969	156	6	59	24	2	104
1964	NA	7	NA	NA	1	NA
Itawamba						
1969	641	64	699	78	25	496
1964	NA	124	NA	NA	6	NA
Jackson						
1969	83	33	195	9	5	40
1964	NA	38	NA	NA	4	NA
Jasper						
1969	338	160	867	47	6	390
1964	NA	209	NA	NA	3	NA
Jefferson						
1969	164	88	442	19	4	130
1964	NA	75	NA	NA	1	NA

Table 48.-(continued)

Area And Year	Number of Farms With Income From					
	Crop Sales	Forest Product Sales	Livestock Sales	Customwork	Recreational Services	Government Farm Programs
Jefferson Davis						
1969	495	233	718	70	23	505
1964	NA	191	NA	NA	5	NA
Jones						
1969	414	127	1,078	82	11	368
1964	NA	123	NA	NA	10	NA
Kemper						
1969	505	143	805	57	9	471
1964	NA	212	NA	NA	8	NA
Lafayette						
1969	552	89	670	75	9	403
1964	NA	148	NA	NA	2	NA
Lamar						
1969	185	85	429	38	4	215
1964	NA	114	NA	NA	2	NA
Lauderdale						
1969	293	111	718	33	7	315
1964	NA	234	NA	NA	13	NA
Lawrence						
1969	289	129	488	33	8	267
1964	NA	162	NA	NA	5	NA
Leake						
1969	771	245	1,135	81	7	755
1964	NA	162	NA	NA	6	NA
Lee						
1969	860	22	797	106	11	602
1964	NA	45	NA	NA	8	NA
Leflore						
1969	412	10	154	59	4	287
1964	NA	21	NA	NA	--	NA
Lincoln						
1969	201	147	807	37	2	288
1964	NA	239	NA	NA	2	NA
Lowndes						
1969	619	53	603	62	17	413
1964	NA	49	NA	NA	8	NA
Madison						
1969	901	108	937	97	20	663
1964	NA	117	NA	NA	6	NA
Marion						
1969	406	137	762	52	10	462
1964	NA	196	NA	NA	5	NA
Marshall						
1969	967	74	803	120	21	681
1964	NA	71	NA	NA	8	NA
Monroe						
1969	956	92	831	129	17	627
1964	NA	72	NA	NA	7	NA
Montgomery						
1969	427	81	553	51	6	333
1964	NA	65	NA	NA	11	NA
Neshoba						
1969	591	214	1,064	86	30	622
1964	NA	288	NA	NA	9	NA
Newton						
1969	290	230	923	65	10	408
1964	NA	234	NA	NA	5	NA

Table 48.-(continued)

Area And Year	Number of Farms With Income From: Crop Sales	Forest Product Sales	Livestock Sales	Customwork	Recreational Services	Government Farm Programs
Noxubee						
1969	604	71	717	90	9	399
1964	NA	131	NA	NA	5	NA
Oktibbeha						
1969	295	99	651	47	11	248
1964	NA	127	NA	NA	9	NA
Panola						
1969	1,022	86	977	158	14	713
1964	NA	67	NA	NA	8	NA
Pearl River						
1969	157	112	536	33	7	179
1964	NA	76	NA	NA	2	NA
Perry						
1969	124	41	294	18	2	100
1964	NA	81	NA	NA	--	NA
Pike						
1969	230	70	605	43	6	244
1964	NA	152	NA	NA	2	NA
Pontotoc						
1969	1,144	100	1,002	145	14	865
1964	NA	144	NA	NA	2	NA
Prentiss						
1969	1,032	81	701	106	9	714
1964	NA	85	NA	NA	7	NA
Quitman						
1969	553	11	121	77	4	420
1964	NA	9	NA	NA	--	NA
Rankin						
1969	340	138	923	72	7	284
1964	NA	191	NA	NA	4	NA
Scott						
1969	477	183	985	84	14	409
1964	NA	197	NA	NA	5	NA
Sharkey						
1969	240	9	46	42	3	155
1964	NA	9	NA	NA	2	NA
Simpson						
1969	429	160	938	78	9	346
1964	NA	219	NA	NA	3	NA
Smith						
1969	323	151	1,087	67	9	425
1964	NA	287	NA	NA	--	NA
Stone						
1969	63	49	214	19	2	66
1964	NA	65	NA	NA	5	NA
Sunflower						
1969	795	4	222	156	9	607
1964	NA	14	NA	NA	5	NA
Tallahatchie						
1969	690	38	448	103	9	454
1964	NA	28	NA	NA	2	NA
Tate						
1969	758	68	852	89	7	653
1964	NA	59	NA	NA	6	NA
Tippah						
1969	1,057	124	830	112	3	801
1964	NA	138	NA	NA	5	NA

Table 48.-(continued)

Area And Year	Number of Farms With Income From					
	Crop Sales	Forest Product Sales	Livestock Sales	Customwork	Recreational Services	Government Farm Programs
Tishomingo						
1969	625	100	454	66	13	446
1964	NA	172	NA	NA	5	NA
Tunica						
1969	287	8	79	49	4	205
1964	NA	8	NA	NA	3	NA
Union						
1969	1,014	59	798	98	17	771
1964	NA	72	NA	NA	--	NA
Walthall						
1969	562	180	1,075	111	17	620
1964	NA	190	NA	NA	1	NA
Warren						
1969	150	46	312	31	12	138
1964	NA	51	NA	NA	14	NA
Washington						
1969	597	9	191	99	8	426
1964	Na	22	NA	NA	5	NA
Wayne						
1969	222	108	544	51	8	306
1964	NA	162	NA	NA	2	NA
Webster						
1969	556	95	605	65	10	432
1964	NA	134	NA	NA	1	NA
Wilkinson						
1969	200	71	383	36	6	116
1964	NA	107	NA	NA	10	NA
Winston						
1969	642	201	1,004	77	10	611
1964	NA	200	NA	NA	--	NA
Yalobusha						
1969	498	79	558	60	11	404
1964	NA	107	NA	NA	5	NA
Yazoo						
1969	656	60	736	87	11	479
1964	NA	78	NA	NA	6	NA

Source: U. S. Bureau of the Census, 1969 Census of Agriculture, Volume 1, Parts 22-37, Tables 4; Volume 2, Chapter 7, Tables 10 and 16.

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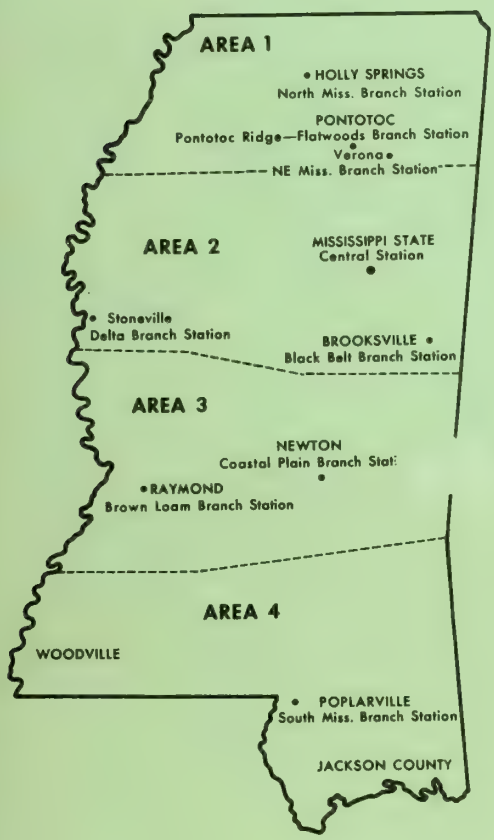
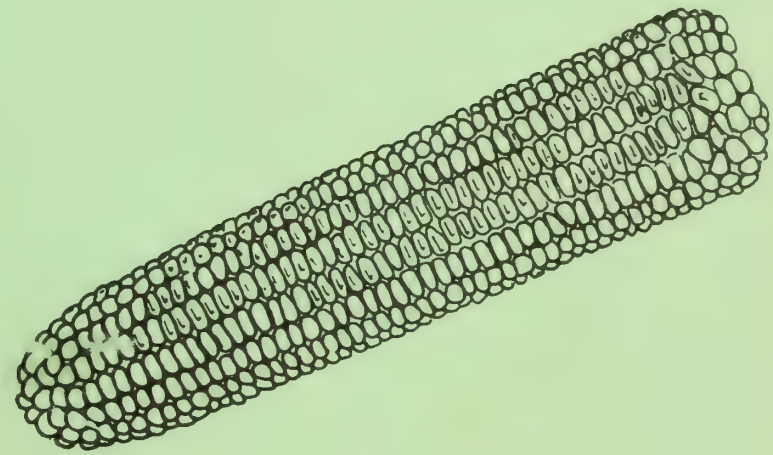
January
1976

Mississippi Hybrid Corn Performance Trials in 1975





By James R. McClusky, Research Technician and Gene E. Scott, Supervisory Research Agronomist, both with the Agricultural Research Service, U.S. Department of Agriculture.

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The test reported in Jackson County was on a private farm through the cooperation of James Clark, RFD, Pascagoula and M. P. Lewis, County Agent.

The test reported in Wilkinson County was on a private farm through the cooperation of T. O. Whitaker, RFD 4, Woodville and John Dale, County Agent.

Mississippi Hybrid Corn Performance Trials in 1975

Trials are conducted annually in Mississippi to provide farmers, seedsmen, county agents, and other interested persons with information on the performance of commercially available corn hybrids. These results are provided for use by corn producers in selecting hybrids suited to their area. New hybrids may be compared with more familiar hybrids and with check hybrids (Dixie 18, Dixie 55, Miss. 0002, and Miss. 6131) that are included in all tests for comparison. Limited seed of the two Dixie hybrids may or may not be commercially available. Seed of Miss. 0002 and Miss. 6131 are not commercially available.

The best guide to the desirability of a hybrid is its performance over a period of years at a number of locations. Therefore, 3-year summaries are reported for all areas.

Corn hybrids respond differently to variations in environment and a given hybrid is not always the best under all conditions. Therefore, it is suggested that corn producers grow two or more *good* hybrids each year. This practice also reduces the chances of having a disease or insect infestation spread through the total corn acreage.

The amount of harvestable good-quality grain (or silage) determines the desirability of corn hybrids. However, attributes other than yield may be extremely important in some instances. For example, resistance to a particular disease should be the prime consideration in areas where the disease occurs. That is, selection should be among hybrids that are known to have resistance to diseases associated with geographic areas

All producers and distributors of seed corn are eligible to enter hybrids in these tests. The producers designate which hybrids they want entered in each area. Hybrids must be submitted for entry to the Mississippi Agricultural and Forestry Experiment Station by February 15. A nominal fee is charged for each hybrid tested in each area to help defray costs of the tests.

Two or more tests are located in each area. Trials were conducted at eleven locations in 1975 (Table 1.).

Table 1. Number of entries and date of planting and harvest, hybrid corn performance trials by location of trials, Mississippi, 1975.

County	Location	No. of entries	Planting date	Harvest date
	Area I			
Marshall	Holly Springs	37	May 5	Sept. 30
Pontotoc	Pontotoc	37	May 2	Sept. 16
Lee	Verona	37	May 6	Sept. 11
	Area II			
Coxubee	Brooksville	36	May 20	-------
Oktibbeha	Mississippi State	36	May 21	Oct. 8
Washington	Stoneville	36	April 24	Sept. 15
	Area III			
Newton	Newton	28	March 27	Sept. 9
Hinds	Raymond	28	May 19	Oct. 15
	Area IV			
Wilkinson	Woodville	23	March 21	-------
Pearl River	Poplarville	23	March 20	-------
Jackson	Pascagoula	23	March 5	Aug. 11

Experimental Procedure

A randomized complete-block experimental design with five replications was used at all locations. A plot consisted of two rows, 40 inches apart and 200 inches long. All experiments were overplanted and later thinned to 16,000 plants per acre (plants 10 inches apart within the row). The plots at Stoneville were irrigated once and all other plots received natural rainfall only. Fertilizer was applied by each cooperator as he thought necessary. Weeds were controlled by cultivation and herbicides The plots were handpicked and the ear corn from each plot was weighed separately. Moisture samples were taken from two replications in each test.

Table 2. Performance of 37 hybrids in Mississippi hybrid corn performance trials, Area I, avera of three locations (Holly Springs, Pontotoc and Verona), 1975

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Mois-ture	Sta
	bu/A	%	%	cm.	no.	%	%
PIONEER BRAND 3147	79.9	0	11	99	100	20.8	94
DEKALB XL 394	74.3	0	8	118	103	22.2	91
DEKALB XL 72B	71.8	0	6	88	101	18.1	9
FUNKS G-4525	71.7	0	10	94	99	15.2	91
PIONEER BRAND 3009	69.1	1	8	113	95	22.3	8
PIONEER BRAND 3179	68.2	0	10	99	97	20.6	9
FUNKS EXP 27466	64.0	0	15	93	96	20.6	7
MISS 6131	63.0	0	19	154	114	19.6	8
PIONEER BRAND 3145	62.1	0	11	104	96	20.3	8
PIONEER BRAND 3177	61.2	1	7	98	87	18.1	8
NORTHRUP KING PX95	59.8	0	11	111	111	19.2	8
DIXIE 55	58.2	0	15	120	93	19.7	8
COLUMBIANA H-2660W	58.2	0	12	110	87	20.3	8
NORTHRUP KING PX79	57.6	0	8	94	87	15.2	8
FUNKS G-4762	56.7	0	8	94	98	21.2	8
McCURDY 72-44A	56.4	0	10	108	103	18.6	7
McNAIR 73009	56.4	0	15	117	100	24.3	8
DIXIE 18	54.8	0	16	131	103	22.4	8
FUNKS G-5757	54.8	1	16	90	85	19.6	8
FUNKS G-4810	54.5	0	23	99	84	20.7	8
FUNKS G-4864	54.0	0	16	106	86	19.8	9
COKER 56	53.8	0	15	101	94	21.7	8
PIONEER BRAND 511A	50.8	0	14	108	100	19.9	7
NORTHRUP KING PX91	50.7	1	14	96	90	19.8	8
FUNKS G-795W-1	49.8	1	20	100	87	21.1	8
COLUMBIANA H-2666	49.2	0	27	86	91	19.0	7
COLUMBIANA H-2740	48.5	1	23	102	105	18.9	6
COLUMBIANA H-2775	46.8	0	28	90	93	20.4	7
McNAIR X 300	46.7	0	21	84	80	20.2	7
FUNKS G-4611	46.2	0	24	86	91	15.3	7
DEKALB XL 395	45.6	0	10	117	78	21.7	7
McNAIR S338	45.5	2	25	90	82	18.3	7
MISS 0002	41.2	0	24	115	80	20.1	8
McCURDY 73-85	40.4	0	28	98	83	20.8	6
FUNKS G-4507	32.4	0	23	91	69	15.5	7
NORTHRUP KING PX76	31.4	0	32	84	78	17.6	7
COLUMBIANA H-2750	30.2	0	30	83	71	19.4	6
MEAN	54.5	0	17	102	92	19.7	8

CV = 21.07%
LSD (.05) = 9.01 bu/A

Test Results/ Area I

Area I---Yields from tests at Holly Springs, Pontotoc, and Verona ranged from 30 to 80 bushels per acre (Table 2.). Stalk lodging ranged from 6 to 32 percent. Some bareness (plants without ears) was noted and this was more prevalent in the poorer-yielding hybrids.

Yields at Holly Springs were disappointingly low with an average of 38 bushels per acre. This reduced yield was at least partly caused by an extended drought. Yields at Pontotoc were fairly good and three hybrids yielded above 100 bushels per acre, with an average of 78 bushels for all hybrids. Stands were erratic at Verona and only 3 replications of this test were harvested. Yields averaged 48 bu/A. There was little plant lodging in this test.

Performance of those hybrids that have been tested in Area I for the last three years is given in Table 3.

Table 3. Performance of 13 hybrids in Mississippi hybrid corn performance trials, Area I, average of three locations (Holly Springs, Pontotoc and Verona) for the three years, 1973-75.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
PIONEER BRAND 3147	89.8	2	13	116	99	19.8	96
MISS 6131	85.2	3	18	143	117	17.8	93
PIONEER BRAND 3179	84.4	2	11	114	96	18.6	95
FUNKS G-4762 [1]	77.6	2	11	108	100	19.9	93
DIXIE 55	76.4	3	19	137	104	18.8	93
PIONEER BRAND 3009	76.2	3	10	122	89	20.5	92
COKER 56	67.7	2	14	108	100	20.6	93
FUNKS G-4864	67.6	3	15	115	87	19.3	93
PIONEER BRAND 511A	66.4	2	19	119	104	18.8	88
DIXIE 18	62.5	2	17	145	98	20.5	90
FUNKS G-5757	61.7	3	17	102	90	19.3	90
FUNKS G-795W-1	59.7	3	21	110	95	19.6	92
MISS 0002	55.0	3	25	130	92	19.6	91
MEAN	71.6	3	16	121	98	19.5	92

[1]1973 data for Funks G-4761 (genetically similar to Funks G-4762) were used to obtain these averages.

Table 4. Performance of 36 hybrids in Mississippi hybrid corn performance trials, Area II, avera of two locations (Mississippi State and Stoneville), 1975.

Hybrid	Yield	Lodging stalk	Ear height	Ears/ 100 plants	Moisture	Mid-[1] silk	Ear[1] quality	Sta
	bu/A	%	cm.	no.	%	days		%
DEKALB XL394	121.7	8	126	133	18.3	63	1.5	10
PIONEER BRAND 3147	120.7	10	119	118	17.8	63	3.7	9
FUNKS G-795W-1	113.6	22	112	142	18.2	62	1.0	9
MISS 6131	111.7	27	129	146	16.8	64	1.7	10
McCURDY 72-24	110.0	13	148	129	18.1	64	1.0	10
McCURDY 73-47A	109.0	15	133	138	18.5	64	1.3	9
McNAIR 73009	107.7	14	137	162	20.4	70	1.0	10
FUNKS G-5945	104.9	11	124	126	19.2	65	1.5	10
P-A-G 644W	104.8	11	126	106	17.6	63	2.2	10
DIXIE 55	103.8	18	131	144	17.6	64	2.0	9
COKER 56	97.9	6	115	124	19.1	63	1.8	10
McCURDY 73-47	97.6	17	125	123	18.0	62	2.2	8
PIONEER BRAND 511A	97.6	14	108	140	18.0	63	1.0	9
PIONEER BRAND 3009	93.3	11	119	101	20.3	64	1.0	9
FUNKS G-4810	93.2	10	116	109	18.1	59	2.2	9
FUNKS G-4864	93.0	6	109	102	17.9	63	2.0	9
FUNKS EXP. 27466	93.0	15	103	110	18.4	65	2.7	9
PIONEER BRAND 3179	91.7	13	111	100	17.0	61	2.5	9
DIXIE 18	91.1	13	147	129	19.2	68	1.0	10
DEKALB XL72B	89.2	8	95	113	17.8	58	3.3	9
DEKALB XL395	87.4	13	122	114	17.9	64	2.0	8
MISS 0002	87.4	24	131	133	18.5	66	1.5	9
COLUMBIANA H2740	86.8	12	114	123	16.9	60	3.5	8
FUNKS G-4762	85.3	12	103	109	18.2	62	2.7	9
FUNKS G-4525	85.1	8	93	105	14.4	57	3.2	9
PIONEER BRAND 3145	84.6	4	114	101	19.0	61	1.3	8
McNAIR S338	84.0	12	110	97	16.9	63	2.5	10
McNAIR X300	80.9	11	100	84	18.2	63	2.3	9
FUNKS G-4949A	78.6	6	121	105	19.4	64	1.7	8
FUNKS G-4611	78.0	9	96	88	15.6	59	3.0	9
McCURDY 74-14A	77.1	8	101	95	20.5	65	1.5	9
P-A-G SX605	76.6	14	122	95	17.5	64	1.3	8
COLUMBIANA H2775	75.8	10	93	105	17.3	61	1.5	8
FUNKS G-4507	75.7	5	104	91	16.4	58	3.5	9
COLUMBIANA H2750	73.7	16	100	101	16.3	64	2.2	8
PIONEER BRAND 3177	73.5	6	97	93	16.9	59	1.0	9
MEAN	92.7	12	115	115	18.0	63	2.0	9

CV = 12.96%
LSD (.05) = 10.6 bu/A

[1]**Data taken only at Stoneville; Ear quality 1 = good; 5 = very poor.**

Test Results/ Area II

Area II---An average yield of 67 and 118 bushels per acre was obtained at Mississippi State and Stoneville, respectively (Table 4.). The yields at Mississippi State were probably reduced because the corn was planted about 6 weeks later than was desirable because of wet soil. A sound fertilization program and the irrigation on July 17 undoubtedly helped to obtain the good yields at Stoneville (a range of 90-159 bushels per acre). This test was planted twice at Brooksville but both plantings were abandoned because of extremely poor stands caused by excessive rains shortly after planting.

The days from planting to 50% silk and the ear quality ratings were taken only at Stoneville. Some hybrids had excellent ear quality (1.0) and others rated as poorly as 3.7 on a rating scale of 1-5.

Performance of the hybrids that have been tested in Area II for the last three years is given in Table 5.

ble 5. Performance of 15 hybrids in Mississippi hybrid corn performance trials, Area II, average two locations (Mississippi State and Stoneville) for the three years, 1973-75.

brid	Yield	Lodging stalk	Ear height	Ears/ 100 plants	Mid-silk	Moisture	Stand
	bu/A	%	cm.	no.	days	%	%
CURDY 72-24	117.0	12	131	132	72	18.2	100
NKS G-795W-1	112.4	13	107	133	70	18.5	96
SS 6131	109.8	18	121	147	71	17.4	97
KIE 55	107.7	13	125	145	71	18.3	96
ONEER BRAND 3147	105.5	6	109	115	71	19.2	97
NKS G-5945	104.8	7	116	123	73	19.8	101
SS 0002	102.8	19	128	136	74	19.2	96
-G 644W	101.4	7	117	106	71	18.1	98
ONEER BRAND 511A	99.8	11	106	127	71	18.3	95
NKS G-4864	99.1	4	105	104	71	18.1	98
ONEER BRAND 3009	97.4	8	112	102	72	20.1	97
ONEER BRAND 3179	95.8	8	104	101	70	18.1	97
NKS G-4762[1]	93.5	7	96	109	69	18.3	98
KIE 18	93.3	8	143	129	77	19.4	98
NKS G-4949A	89.5	7	114	116	72	20.2	91
AN	102.0	10	116	122	72	18.7	97

1973 data for Funks G-4761 (genetically similar to Funks G-4762) were used to obtain these erages.

Table 6. Performance of 28 hybrids in Mississippi hybrid corn performance trials, Area III, avera of two locations (Newton and Raymond), 1975.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Mois-ture	Sta
	bu/A	%	%	cm.	no.	%	%
P-A-G 751	92.8	0	9	124	119	14.1	9
PIONEER BRAND 3009	91.2	0	11	116	93	15.1	9
DEKALB XL 394	90.8	0	7	117	102	14.0	9
PIONEER BRAND 511A	88.8	0	5	114	108	14.2	9
PIONEER BRAND 3147	88.4	0	6	105	100	12.9	9
McNAIR 73011	88.2	0	5	128	110	15.0	9
DIXIE 55	87.2	0	7	132	110	13.8	9
PIONEER BRAND 3030	87.0	0	9	106	109	15.0	9
FUNKS 795W-1	86.5	0	9	112	109	13.6	8
FUNKS G-5945	85.7	0	6	123	103	14.7	9
FUNKS G-4864	83.9	0	8	103	98	13.4	9
McCURDY 73-75	83.9	0	9	147	114	14.8	9
MISS 0002	83.4	0	12	136	106	13.8	9
MISS 6131	82.7	0	11	124	120	13.4	9
McNAIR 73009	82.3	0	9	137	128	15.8	8
COKER 54	81.5	0	5	111	103	15.2	9
COKER 77	80.2	0	8	124	101	15.6	9
FUNKS G-4949A	80.0	0	6	116	98	13.7	9
McNAIR 508	78.0	0	5	117	113	15.3	9
PIONEER BRAND 3145	77.9	0	6	110	93	13.9	9
DIXIE 18	75.6	0	10	148	111	14.5	8
P-A-G SX605	74.6	0	9	109	87	13.9	8
DEKALB XL 395	72.8	0	5	124	87	15.3	9
FUNKS G-4810	70.5	0	11	105	103	13.5	8
McCURDY 73-79	68.8	0	12	127	102	13.7	9
FUNKS G-4762	64.7	0	22	98	96	13.5	8
FUNKS G-4611	62.4	0	18	94	91	13.1	9
PIONEER BRAND 3177	59.5	0	16	99	89	13.6	8
MEAN	80.3	0	9	118	104	14.3	9

CV = 12.70%
LSD (.05) = 9.12 bu/A

Test Results/ Area III

Area III---Yields at Newton and Raymond averaged 85 and 75 bu/A, respectively (Table 6.). The April 23 planting at Raymond was a failure because of poor stands. However, stands were adequate in the May 19 replanted test.

Performance of the hybrids that have been tested in Area III over the last three years is given in Table 7.

ble 7. Performance of 17 hybrids in Mississippi hybrid corn performance trials, Area III, average two locations (Newton and Raymond) for the three years, 1973-75.

brid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Mois-ture	Stand
	bu/A	%	%	cm.	no.	%	%
NAIR 73011	90.7	2	8	129	110	16.2	98
SS 6131	90.5	5	25	130	119	14.3	93
ONEER BRAND 3147	89.7	2	13	109	96	14.3	94
ONEER BRAND 3030	88.4	2	9	116	99	16.4	92
NKS G-795W-1	87.9	3	20	114	100	14.6	92
ONEER BRAND 511A	87.3	2	17	117	101	15.2	90
ONEER BRAND 3009	85.5	2	15	112	95	16.6	90
KIE 55	85.2	3	14	135	109	15.1	93
SS 0002	83.4	2	23	132	105	15.6	93
-G 751	82.8	2	13	126	109	15.6	97
NKS G-5945	81.5	1	12	125	99	16.5	91
KER 54	80.9	1	10	118	105	16.8	93
NKS G-4949A	79.9	1	9	124	95	16.6	95
NKS G-4864	78.9	1	9	108	90	14.9	94
NAIR 508	76.8	2	12	120	113	17.3	95
KIE 18	73.2	3	16	146	107	16.1	91
NKS G-4762 [1]	69.2	2	19	102	91	15.2	89
AN	83.1	2	14	121	103	15.7	93

973 data for Funks G-4761 (genetically similar to Funks G-4762) were used to obtain these rages.

Table 8. Performance of 23 hybrids in Mississippi hybrid corn performance trials, Area IV (Jacks County), 1975.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Sta
	bu/A	%	%	cm.	no.	%	%
McNAIR 73009	51.7	0	3	0	85	22.5	9
DIXIE 18	47.2	0	28	0	87	18.9	8
FUNKS G-5945	42.7	0	19	0	91	20.8	8
McNAIR 508	39.6	0	15	0	98	22.4	7
COKER 77	37.4	0	35	0	94	18.4	7
DEKALB XL 395	36.9	0	19	0	81	19.7	6
P-A-G 751	36.2	0	36	0	92	19.4	7
PIONEER BRAND 3030	36.2	0	37	0	101	19.3	7
McNAIR 73011	33.9	0	20	0	79	21.9	5
FUNKS G-795W-1	32.7	0	40	0	91	18.6	7
PIONEER BRAND 3009	30.8	0	48	0	85	19.3	7
MISS 0002	30.2	0	44	0	91	17.4	7
DEKALB XL 394	29.6	0	52	0	84	19.0	8
COKER 54	29.5	0	41	0	88	18.0	7
MISS 6131	29.5	0	56	0	86	18.8	7
FUNKS G-4949A	28.6	0	37	0	82	20.1	7
FUNKS G-4810	28.2	0	36	0	94	18.3	7
FUNKS G-4864	26.2	0	37	0	95	17.8	7
DIXIE 55	25.9	0	58	0	91	18.3	7
PIONEER BRAND 3145	23.7	0	47	0	76	19.9	7
FUNKS G-762	23.5	0	50	0	83	20.5	7
PIONEER BRAND 511A	23.3	0	46	0	77	19.0	6
FUNKS G-4611	14.1	0	63	0	68	17.9	7
MEAN	32.1	0	38	0	87	19.4	7

CV = 21.87%
LSD (.05) = 8.10 bu/A

Test Results/ Area IV

Area IV---A summary of the results of two tests in Jackson County is given in Table 8. Plants in these tests did not grow vigorously and as a result, plant height of most hybrids was 5 feet or less. This poor growth and subsequent low yield resulted from the area being flooded due to excessive rainfall on a number of occasions when the plants were young and probably because of a limited amount of available nitrogen.

Tests at Woodville and Poplarville had to be abandoned because of poor stands.

Performance of the hybrids that have been tested in Area IV for the last three years is given in Table 9.

Table 9. Performance of 15 hybrids in Mississippi hybrid corn performance trails, Area IV, average of three locations (Jackson County, Poplarville, and Woodville) for the three years, 1973-1975.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
McNAIR 73011	62.4	1	12	95	101	18.8	88
PIONEER BRAND 3030	61.0	2	26	76	103	16.4	91
McNAIR 508	59.9	1	11	89	109	18.7	88
COKER 54	59.7	3	30	78	103	15.7	88
DIXIE 18	58.9	2	20	96	99	17.2	91
FUNKS G-5945	58.9	6	20	85	100	17.3	89
ASGROW 6131	57.8	6	48	78	109	16.2	88
PIONEER BRAND 3009	57.0	3	40	67	99	18.0	85
FUNKS G-4949A	56.4	2	25	85	92	18.4	89
DEKALB A-G 751	56.4	5	35	79	100	16.3	89
PIONEER BRAND 511A	55.6	3	43	74	99	17.2	86
FUNKS G-4864	54.4	1	26	69	98	17.0	91
ASGROW 0002	53.6	4	39	82	99	16.4	88
DIXIE 55	53.4	3	45	83	107	16.4	85
FUNKS G-4762 [1]	46.2	2	43	63	94	17.4	87
MEAN	56.8	3	31	80	101	17.2	88

[1]1973 data for Funks G-4761 (genetically similar to Funks G-4762) were used to obtain these averages.

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The monetary returns resulting from the reported fertilization rates and the fertilization rates that will maximize returns (minimize losses) from fertilization cannot be projected precisely.

All application rates are based largely on past agronomic performance and are intended as guidelines only. The rate of application that will maximize profits or minimize losses for each crop depends upon weather, differences in the level of efficiency of utilization of forages and changes in the prices of livestock and crops relative to the prices of fertilizer.

Unfavorable product/input price relationships may make it impossible to produce a farm product profitably. In this event the choice is whether to produce in the short run or abandon the enterprise. Continuing the enterprise requires the use of fertilizer at rates that will minimize short-run losses.

Varieties listed herein have shown dependable performance; however, this list is not all-inclusive.

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Grasses, Legumes and Small Grains .....

1976 Crop and Fertilizer Guidelines for Mississippi

Crop and fertilizer guide-lines are given annually by MAFES. These guidelines incorporate the latest research findings at Mississippi State and the Branch Experiment Stations. Included is information on varieties, fertilization and seeding practices for crops commonly grown in the state, as well as information on lawns and other turf areas.

Because of varying soil and weather conditions and other local factors, no single crop variety or fertilization practice is ideally suitable for all of the state, or even one county; nevertheless these general guidelines are useful for crop production. These guidelines are given with the assumption, of course, that other good farming practices will be followed.

If more specific information is needed, it may be obtained from the Cooperative Extension Service, MAFES, your County Agent, or other trained agricultural workers in your county.

Soil Testing Service

You get maximum profit from fertilizer only when you use the right kind and amount on each field. Through the Soil Testing Department of the Cooperative Extension Service every farmer can get information on recommended fertilizer rates as well as recommendations for exceptionally high production goals. Also, the Soil Testing Service provides information on liming practices.

Soil testing is a free service. Soil sample boxes, mailing cartons, and instructions for collecting samples are available in each county agent's office and in the offices of other agricultural agencies.

Plant Nutrients

Plant nutrients may be divided into two group---(1) those elements used by crops in relatively large amounts, the *macronutrients;* and (2) those needed in very small amounts, the *micronutrients.*

The first group includes nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur. These are usually subdivided into the primary fertilizer nutrients---nitrogen, phosphorus, and potassium---and the secondary fertilizer nutrients---calcium, magnesium, and sulfur. The primary nutrients are applied to crops either as individual materials or as mixed fertilizers.

A fertilizer material usually contains only one fertilizer nutrient. Some examples are as follows: Ammonium nitrate (34% N), anhydrous ammonia (82% N), urea (45% N), concentrated superphosphate (45% P_2O_5), and muriate of potash (60% K_2O).

Mixed fertilizers contain two or more of the fertilizer nutrients. Each fertilizer bag is labeled with a set of numbers to show how much of each nutrient it contains. The first number shows the percentage of nitrogen (N); the second, the percentage of available phosphate (P_2O_5); and the third, the percentage of available (water-soluble) potash (K_2O). One hundred pounds of a 10-20-20 fertilizer thus contains 10 pounds of total N, 20 lbs. of available P_2O_5, and 20 lbs. of available K_2O.

Fertilizer ratio refers to the relative amounts of these nutrients. The fertilizer grade gives the guaranteed amounts of each fertilizer nutrient as a percentage. For example 8-8-8 and 10-10-10 are two different grades in a 1-1-1 ratio. Similarly 6-18-18 and 8-24-24 are two grades in a 1-3-3 ratio. Materials such as ordinary superphosphate may be labeled as 0-20-0.

Presently, fertilizer nutrients are either expressed as the oxide---phosphorus as P_2O_5---or as the element---nitrogen as N---but there is a trend toward expressing all fertilizer nutrients on the elemental basis. Accordingly, phosphate would be expressed as (P) and potash as (K) by using the chemical symbols for phosphorus and potassium, respectively. The primary "fertilizer nutrients" expressed on the elemental basis would then be shown as N-P-K on the fertilizer bag.

Some fertilizers are labeled both ways to familiarize consumers with the new labeling trend. When labeled on an elemental basis a 10-20-20 (N-P_2O_5-K_2O) would become a 10-8.2-16.5 (N-P-K). The conversion factors for potash are: $K_2O \times 0.83 = K$; $K \times 1.21 = K_2O$. The conversion factors for phosphate are:

P_2O_5 x 0.436 = P; P x 2.29 = P_2O_5. Only the method of labeling is changed, not the plant nutrient value of the fertilizer.

Fertilizer guidlines are given in this bulletin as pounds of N, P_2O_5 and K_2O needed per acre. Usually the farmer will have a choice of more than one fertilizer grade. For example, 48 lbs. each of N, P_2O_5 and K_2O may be supplied with 600 lbs. of 8-8-8 or 400 lbs. of 12-12-12. Since small deviations from the general recommendation do not affect net profit greatly, it is not necessary to apply exactly the amount of N, P_2O_5 or K_2O indicated.

Both the need for and the presence of the secondary nutrients in fertilizers vary. Research has shown that sulfur deficiency is likely to occur on soils in the Hill area when sulfur-free fertilizers are used. Accordingly, sulfur is recommended for crop production in this area, especially for cotton and legumes. A convenient and economical way to get the sulfur is to use mixed fertilizers that contain sulfur. Most solid mixed fertilizers sold in Mississippi contain adequate sulfur, but most liquid mixed fertilizers do not, unless special provision is made for adding it.

Scattered instances of sulfur deficiencies have been observed in the Delta. These deficiencies have been associated with land leveling on very sandy soils that are low in organic matter. Since mixed fertilizers are less commonly used in this area, other sources of sulfur may be more economical or convenient to apply.

Sources of sulfur that may be used include gypsum, elemental sulfur, ammonium sulfate, and ordinary superphosphate.

Calcium and magnesium usually applied to soils agricultural limestone.* On needing magnesium but not re ing lime, the addition of a w soluble source of magnesiu mixed fertilizers is a very venient method of supplying magnesium.

The second group of nutrien referred to variously as *t elements, minor elements, micronutrients.* They are neede crops in very small amounts. cluded are iron, manganese, copper, boron, molybdenum chlorine. Thus far, only three (i boron, and molybdenum) of t have been found to be appreci deficient for crop productio Mississippi. These deficien have not occurred on all crops have been restricted mostly to Hill area.

Solid or Liquid Fertilizers

When used properly, solid and liquid mixed fertilizers are equally effective for crop production in most instances. Therefore, the choice as to which to use should be based primarily upon such factors as comparative costs, ease and uniformity of application, availabi lity of application equipment and labor requirements rather than on differences in agronomic value.

Solid complete fertilizers that contain highly-ammoniated ordinary superphosphate (20% P_2O_5) are less effective than other complete fertilizers (both liquid and solid). Ammoniation of ordinary superphosphate converts some of the highly-effective water-soluble monocalcium phosphate to a much less effective water-insoluble apatite-like calcium phosphate, the quantity of which increases progressively with increasing ammoniation.**

In general, farmers are assured of good results from mixed fertilizer if 40 percent of the available phosphorus is water-soluble. Some manufacturers show the water-soluble phosphorus content of their fertilizers, though this is not required by law.

A substantial amount of nitrogen in liquid mixed fertili usually is derived from urea an ammonium nitrate. Nitro solutions containing either ure urea and ammonium nitrate h been proven much less effectiv surface application to perma summer pastures than have ei solid urea or ammonium nitr Therefore, solid complete fertili can be expected to be more effec for summer pastures than w liquid fertilizers containing ur

Liquid NPK fertilizers tomarily are formulated u ingredients that do not contain fur.

Soil pH and Liming

Excessive soil acidity results in reduced crop yields. A recent summary of soil test results by the Cooperative Extension Soil Testing Department showed that 70 percent of the soils tested needed lime for legumes and 40 percent for non-legumes.

The degree of acidity or alkalinity of a soil is expressed by its pH; values below 7.0 indicate an acid soil, values above 7.0, an alkaline soil. Soil reaction, or pH, affects availability of some of the more portant plant nutrients in the s

Phosphorus and molybden particularly molybdenum, much less available to plants

**The major objective of liming is to neutralize soil acidity.*

***Ammoniation of superphosphate to add nitrogen in the formulation and mixed fertilizers is a commo practice. The production of ordinary superphosphate is declining rapidly. If the trend continues, its use i mixed fertilizers will be discontinued in the near future.*

cid soils than in slightly acid
ldly alkaline soils. On the
hand, in strongly and very
gly acid soils (pH below 5.5),
in elements such as
anese and aluminum may
ne so available as to be toxic to
s.

ronutrients such as iron,
anese, boron and zinc rapidly
ne less available as the pH of
oil is increased above 6.0. This
e reason why soils should not
erlimed.

perience in Mississippi has
n that plant injury from
iencies of boron and zinc is
likely to be associated with
iming. In the case of cotton
legumes, plant injury is very
to be due to boron deficiency
with corn, and perhaps other
ses, to zinc deficiency.

ils with a pH of 6.0 to 7.0 are
supplied with lime. If the pH is
than 5.5, the soil is strongly
and needs liming. Most non-
mes grow best at soil pH values
e 5.5 while most legumes do
if the pH is maintained above
Alfalfa does best at soil pH
es above 6.5.

he amount of lime required to
e the pH of the soil to a desired
e depends both on the initial
and the lime-holding capacity
e soil. For soils of Mississippi
ing a pH of 5.5 or slightly
w, the application of 3000
nds of lime per acre to sandy
n soil, 5000 or 6000 pounds to
n and silt loam soil, and 7000 to
0 pounds to clay loam and clay
s, respectively, has satisfactor-
corrected lime deficiency for
mes. Since about two-thirds of
soils of the state have pH values
.5 or above (with 95 percent
ve 5.0) these rates of lime would
g the pH of most of the soils of
state within the range that is
orable for legumes. However,
e soils need more, some less,
some none. *Therefore, the best*
ctice is to test the soils for pH
lime requirement and apply lime as needed to maintain the pH within the desired range.

Lime is lost naturally from the soil by crop removal and by leaching. The use of acid-forming sources of nitrogen and the turning under of legumes as soil builders accelerate leaching losses. For example, 100 pounds of nitrogen from such sources as ammonium nitrate, anhydrous ammonia and urea will cause the loss of calcium and other bases equal to about 200 pounds of lime. When applied annually at this rate, the loss would amount to one ton of lime every ten years due to fertilizer alone. Because of these losses, soils need to be limed periodically.

Generally, on sandy loam, loam and silt loam soils, a maintenance application of 2000 to 3000 pounds of lime per acre once every five to seven years is required for legumes and for non-legumes fertilized with nitrogen as recommended. On clay loam and clay soils, less frequent but larger applications are required. Except for the dark upland soils and the bottom soils of the Northeast Blackland area, maintenance application should be made to soils that have not been limed during the past five to seven years.

Although lime may be needed badly for non-legumes on some soils, the deficiency is not widespread enough to warrant a general recommendation for rates in excess of maintenance requirements. *When there is doubt have the soil tested.*

Areas going into permanent grass sod should receive the initial maintenance application of lime before sod is established. Subsequent maintenance applications may be broadcast on the established sod.

The principal liming materials available in Mississippi are ground calcic and dolomitic limestones, crushed chalk or marl from Mississippi deposits, and basic slag. Calcic limestones contain calcium carbonate while dolomitic limestones contain both calcium and magnesium carbonates. Liming materials from Mississippi deposits contain only calcium carbonate. Basic slag, a material containing a minimum of six percent P_2O_5 and the equivalent of about 60 percent lime, should be used only where both the lime and phosphate are needed. The cost of its use as a liming material only is prohibitive.

Research has shown that all of these materials are very effective in neutralizing soil acidity, providing the calcic and dolomitic limestones are finely ground. Particles not passing a 40-mesh (40 holes per linear inch) screen are not very effective in neutralizing soil acidity. For this reason, 90 to 100 percent of calcic and dolomitic limestones should pass a 10-mesh screen and 50 percent a 100-mesh screen. Particle size is not as important in the case of chalk because it contains clay impurity which causes the particles to break down within the soil. It must be crushed finely enough, however, to be spread uniformly.

Generally, the Delta and Loess soils are abundantly supplied with magnesium; therefore, dolomitic lime is of no advantage in these areas. In other soils of the state, however, magnesium levels tend to be lower and a liming material containing considerable magnesium, such as dolomitic lime, should be used, particularly in the Northeast Blacklands.

For best results lime should be mixed thoroughly with the top six to eight inches of the soil. However, depending on the texture of the soil, maintenance treatments of 1000 to 2000 pounds per acre may be made as a surface application to permanent pastures, or other permanent sods.

The primary benefits of liming acid soils are: (1) increased availability of phosphorus and molybdenum; (2) correction and/or prevention of aluminum and

manganese toxicity; (3) reduced loss of potash by leaching, especially on sandy loam and silt loam soils; and (4) increased supply of available calcium, and magnesium where dolomitic lime is used.

To be used most profitably lime should be applied before there are reductions in yield due to acid-soil infertility. Though soil productivity may be restored by liming, lo in yield due to acid-soil infert can never be recovered.

When to Fertilize

The availability of fertilizers to plants decreases with the passage of time following application. This occurs because they may be lost by leaching and volatilization or be converted to less available forms within the soil. Nitrogen is both leached and volatilized. Potassium is leached from some soils but phosphate is not. But phosphate is changed to less available forms.

Fertilizers may contain nitrate or ammonium nitrogen, or both, or other forms (urea) that are changed rather rapidly to ammonium when applied to the soil. Nitrate salts found in fertilizers and in soils are highly soluble in water and are not retained chemically by the soil. Since they remain in solution and move freely with the soil water, they are easily leached from the root zone, particularly on sandy loams, loam and silt loam soils, or other soils where water percolates readily. Under water-logged conditions, which are more likely in clay soils, nitrates may be changed by soil bacteria to gaseous nitrogen (denitrified) which escapes into the atmosphere. Ammonium nitrogen is not denitrified nor is it easily leached, but it does not persist for long periods. It is changed (nitrified) by soil bacteria to nitrate.

Since nitrogenous fertilizers are not held in soils for long periods, they are used more efficiently for crop production when applied at or near planting time or during the growing season. In most instances, applying all of the nitrogen to row crops at or just before planting is just as effective as applying from one-half to all of it as a sidedressing. Exceptions are on deep excessively drained sandy loam soils, or clay loam and clay soils that become water-logged, either because of poor surface drainage or by stream flooding, or both.

Split applications of nitrogen are recommended for grass forages to increase the efficiency of utilization and distribution of forage production, to avoid nitrate poisoning, and to increase nitrogen efficiency by reducing leaching and denitrification losses.

Phosphate fertilizers are not lost by leaching because they react with certain soil constituents to become only sparingly soluble in water. In acid soils the reaction is mostly with iron and aluminum but in neutral and alkaline soils calcium phosphates of very low water solubility also are formed. The soil-phosphate reaction products become less available with time and the process is more rapid in acid soils, particularly at pH values below 6.0.

The formation of sparingly soluble phosphates and their subsequent reduction in availability to plants is referred to as "phosphate fixation." Because of fixation, greater efficiency generally is obtained from annual, seasonal applications of phosphate fertilizer than from less frequent or off-season applications, especially on moderately to strongly acid soils. Accordingly, it is usually suggested that phosphate fertilizers be applied at or just before planting, or near the beginning of the growing period for perennial crops.

Unlike phosphate, the ef tiveness of potash fertilizers is reduced greatly by fixation in l sissippi soils. But there is some by leaching, particularly from more sandy soils. Where leach is significant, annual or seaso applications result in more ficient utilization of potash than less frequent or off-sea applications. Because of uptak potash in excess of need and removal in the harvested crop, nual and sometimes sp applications are necessary for timum efficiency for hay crops

Farmers are becoming creasingly interested in furt mechanization, in more use custom services, and in spread their work-load to increase effic cy. One way of spreading the w load is to combine fertilizer appl tion with fall land preparation spring-seeded crops, where thi feasible.

Fall application of nitrogen spring-seeded crops is not practi in Mississippi. However, the le of phosphate and potash in mos the better crop land are such t recommended rates may be appl in the fall with little if any rec tion in yield, except on very d sandy soils where excess leaching of potash may oc Potash losses by leaching may reduced by broadcasting the tilizer and by liming acid soils keep the pH above 6.0. A leaching losses may be comp sated by higher rates of appli tion, which may be an accepta alternative to spring applicatio some cases.

How to Fertilize

Attaining maximum plant utilization of fertilizers requires that the two components of availability (chemical and positional), be optimized concurrently. Chemical availability refers to the capacity of the fertilizer and soil-reaction products to sup nutrients to plants. Positio

vilability refers to the location of
h fertilizer with respect to the
lat roots. For example, fertilizer
l ed in the soil a foot or so from
h row is positionally unavailable
o eedling plants.

he chemical availability of
i ogen and potassium in fer-
il ers usually is not affected
r atly by degree of contact with
h soil. However, the effectiveness
f highly reactive phosphates is
r ected by reducing their contact
vi h the soil. This slows the rate of
h sphate fixation and may be
o e either by band placement in
h soil or by granulation of the fer-
il er at the factory. Since most
o d fertilizers sold in Mississippi
r granulated or pelleted, method
f pplication has a greater effect
n positional than on chemical
v ilability in the soil.

o assure effective positional
v ilability, fertilizers should be
l ed so that they are moved to
l nt roots with the soil water or so
h t the fertilized zone is in-
e epted by plant roots at the ap-
r priate time. As plants grow and
x nd their roots both horizontal-
y nd vertically, the volume of soil
n which nutrients may be ab-
o ed is increased. Consequently,
e ilizers that are positionally un-
v ilable during early plant
r wth may be available later.

hosphate does not move ap-
r ciably in soils and the move-
n t of potash is somewhat
i ited, especially on soils of
l ium to fine texture. Therefore,
s e fertilizers must be placed so
t the fertilized zone is in-
e epted by plant roots. For drill-
e ded and row crops, phosphate
l potash should be placed deeply
o ugh to be in the moist soil where
n nts feed as they grow. For such
c ps, surface application or
l llow incorporation, such as by
d king, would be expected to give
e rior results because of poor
p itional availability.

Nitrogen as nitrate moves with
soil water to plant roots. Its over-all efficiency is not affected greatly by degree of concentration or its location within the root zone in soils of medium to coarse texture, but enough nitrogen should be positionally available for good growth of young plants. However, on clay loam and clay soils, band application in the soil at the edge of the root zone may be superior to broadcast application for row crops, because of increased positional availability and reduced risk of loss of nitrogen by denitrification.

Nitrogenous fertilizers applied to the surface of dry soils are positionally unavailable until dissolved and moved down into plants' root zone by percolating water. Before ammonium nitrogen in fertilizers is moved down into the root zone, it must be changed (nitrified) by soil bacteria to nitrate, a process requiring two or four weeks for completion in moist soil during warm seasons. Poor positional availability is avoided by applying nitrogenous fertilizers far enough in advance for the necessary transformation and movement into the root zone by moisture migration to occur by the time the nitrogen is needed by the crop.

Optimum efficiency of immobile fertilizer nutrients such as phosphorus and potassium results from localized concentration of materials near the row or drill, such as results from band application. This provides a very favorable opportunity for early interception by plant roots and for extensive root development within the fertilizer zone. An outstanding benefit from phosphorus is its favorable influence on the early growth and development of plants, which is enhanced by localized placement of fertilizer near the row.

Although maximum efficiency of phosphate and potash is usually obtained by band placement for row crops and drill-seeded crops, top yields can be obtained with broadcast application of these fertilizers. But on soils that are low to very low in phosphate and potash, attaining the same increase in yield requires higher rates for broadcast than for band application. This is especially true where the fertilizer is incorporated by shallow disking instead of being plowed under. Because of accumulation from previous application or because of high native fertility, only a small percentage of the land previously cropped to cotton and fertilized as recommended over a long period would be expected to require appreciably higher broadcast rates of phosphorus and potash.

Poor stands and stunted growth may result from localized placement of fertilizers too near the row because of salt injury to seeds and seedlings. Since fertilizer salts, such as nitrates and chlorides, move mostly upward and downward with soil water rather than laterally by diffusion, salt injury can be avoided by placing the fertilizer to the side of rather than beneath the seed. The distance of separation required depends upon the kind of fertilizer and the rate of application. For recommended rates of phosphate and potash and up to about 40 pounds of nitrogen per acre, the minimum distance of separation should be three to four inches to one side and three to four inches deeper than the seed. With higher rates of nitrogen or potash, both the horizontal and vertical distances between seed and fertilizer should be increased or the fertilizer should be broadcast and plowed under.

Surface application of phosphate and potash to sod crops is more effective than for row crops. This is due in part to the development and persistence of plant roots near the surface. Because it is both convenient and effective, this method of application is recommended for maintenance fertilizers on perennial, close-growing crops.

Solid sources of nitrogen are much more effective for surface application to summer pastures than are the urea-ammonium nitrogen solutions such as N-Sol-32 and URAN. These solutions have ranged in effectiveness from 66 to 74 percent of that of solid ammonium nitrate. Urea solid has been equal to ammonium nitrate when applied in June, but when applied a month earlier its relative value was about 85 percent of that of ammonium nitrate.

Surface application of solid urea should not be made to pastures or other areas in sod in the spring summer when the soil is too w till or when the grass is we applied when either the soi grass is wet excessive atmospl loss of nitrogen as ammonia is ly to occur.

Foliar Feeding

Plants absorb and utilize nutrients applied in solution to their leaves and, if a deficiency exists, yield and-or quality may be improved by foliar application. Because they are required in such small amounts, very dilute salt solutions of the *micronutrients* (trace elements) may be used quite satisfactorily as foliar sprays to correct deficiencies without injury (burning) to foliage.

In some areas foliar feeding of trace elements has become a somewhat standard practice in crop production. Frequently, *micronutrients* are applied conveniently and inexpensively along with insecticides and fungicides. A typical example is the application of boron to cotton with the insecticide. So far, under Mississippi conditions, there appears to be no need for both foliar and soil application of micronutrients where they are needed for crop production.

The primary (nitrogen, phosphorus, and potassium) and the secondary (sulfur, calcium, and magnesium) nutrients, are absorbed in relatively large quantities by crops. Thus, to supply a substantial part of the total requirement of these nutrients without burning the leaves of plants would require se applications of rather d solutions during the gro season. Therefore, foliar feedi these nutrients is not as feasib is foliar feeding of *micronutrients.*

Increases in the yield of c have been obtained by f feeding of the primary nutri under certain conditions, but i not been shown so far to desirable or economical alterna to soil application of t nutrients. *Therefore, foliar fee is not now recommended rout in lieu of or as supplement t application of macronutrients*

GUIDELINES FOR MAJOR FIELD CROPS

Corn

Hybrid: Detailed results of hybrid corn trials are published annually in MAFES Research Highlights.

Seeding Dates and Rates and Land Selection: Plant in North Mississippi from April 1 to April 25, in North Central Mississippi from March 25 to April 20, in South Central Mississippi from February 25 to March 15.

Corn should be planted on deep to moderately deep soil with fair to good surface drainage. Steep, droughty, and eroded hillsides are not suitable for corn.

Stands should be adjusted to yield and generally should be within the range of 12,000 to 18,000 plants for average yields of 80 to 120 bushels per acre. A good rule of thumb is to provide approximately 150 plants for each bushel of corn expected. Thus, on land that will produce an average yield of 80 bushels, the stand should be 12,000 plants per acre, for 100 bushels 15,000 plants, and for 120 bushels 18,000 plants. On land well adapted to corn, yields usually will fall within the range of 80 to 120 bushels per acre under good cultural practices. *However, average yield goals in excess of 100 bushels per acre generally should not be set unless supplemental irrigation is available.*

Fertilization — Hill Area: Soils of the Hills areas generally require a complete fertilizer for corn. Soils should be limed to maintain the PH above 5.5. Occasionally, following the application of lime, zinc deficiency may occur, especially on soils of medium to coarse texture. Therefore, a mixed fertilizer which contains enough zinc to 2-3 pounds per acre should be for two or three years after lin particularly on sandy loam an loam soils. No other micronut deficiencies have been observ corn.

Time: Apply all of the phosp and potash before plan Nitrogen may be applied b planting or in split applicatio split, one-fourth to one-third b planting and the remainder side dressing by the time the c knee high.

Rate: Rate of fertilization sh be adjusted to expected yield expected yields of 120, 100, a bushels per acre, the respecti P_2O_5-K_2O rates should be 16 60, 130-50-50, and 100-40-40 po per acre. When corn is grow silage the respective N-P_2O_5

es should be 130-50-100 for lds of 16 to 18 tons per acre.

Method: All of the phosphate l potash and up to 40 pounds of rogen per acre may be placed in and located three to four inches ne side and three to four inches per than the seed; the remain- nitrogen may be drilled six or re inches from the row, broad- t, or applied later as a side- ssing. All or part of the nitrogen y be broadcast as a mixture with osphate and potash; however, fertilizer should be plowed wn as should all broadcast plications of phosphate and tash. Preplant applications of hydrous ammonia should be ced at least six inches to one side d five to six inches deeper than e seed.

Varieties: Results of variety ts are published annually in AFES Research Highlights.

Seeding Dates and Rates: nt flat at a depth of two inches soon after April 1 as weather per- ts, but not until the soil nperature is 68°F: hill dropped--- to 22 pounds delinted seed per e; drilled---30 to 40 pounds of linted seed per acre; drilled for ss plowing---60 pounds of linted seed per acre. Seed should of good viability.

Fertilization: Many Delta soils ed only nitrogen, but deficiencies potash and phosphate do occur, pecially of potash. For example it estimated that 20 percent of the ndy loam soils, 75 percent of the orly-to somewhat poorly-drained t loam soils and 30 percent of the ty clay loam soils will respond to tash. Thirty percent of the sandy m and silt loam soils may need osphate. Therefore, soils should tested for phosphate and potash eds, as well as for lime. Also, san- soils that are low in organic matter, or that have been leveled, should be tested for sulfur needs.

Time: Apply nitrogen in the spring at or before planting, except on sandy loam soils having very good to excessive internal drainage and on clay soils with poor surface drainage. On such soils, make split application of nitrogen, one-third to one-half at or before planting and the rest as a side dressing, preferably by mid-June. Split application of nitrogen on clays with poor surface drainage is recommended because of possible loss of nitrogen by denitrification during wet periods.

Rate: On sandy loam, loam, and silt loam soils use 90 to 100 pounds of nitrogen per planted acre. Use one hundred to 120 pounds of nitrogen per acre on the silty clay loams, silty clays, and clays for all planting patterns, except that for clays with poor surface drainage use 120 to 150 pounds. In a 4x4 or 2x2 planting pattern it is obvious that only one-half of the land area is planted.

For cotton following soybeans or pasture sod, the nitrogen rate should be reduced 20 to 30 and 40 to 50 pounds per acre, respectively.

On soils where stalk growth is too rank, maturity too late, and boll rot is a problem because of excess nitrogen, the nitrogen rate should be reduced by 30 percent.

Sixty pounds of potash banded or broadcast are suggested for the poorly to somewhat poorly drained silt loam and silty clay loam soils (Forestdale and similar types). Phosphate is not recommended but, if applied with potash, use a mixed fertilizer having a P_2O_5 - K_2O ratio of 1:3. Neither potash nor phosphate is recommended on other soils except when indicated by a soil test.

Method: Application practices for nitrogen are the same as for corn in the Delta area. Side-dress applications of nitrogen made after mid-June should be placed in the soil. Banded phosphate and potash should be placed three to four inches to one side and three to four inches deeper than the seed. Broadcast phosphate and potash should be worked into the soil by double disking with a breaking disk, or plowed in with a moldbroad plow.

Place side-dress applications of nitrogen a foot or more from the row, non-pressure solutions and solid sources at a depth of four inches and anhydrous ammonia at a depth of six inches. Surface side-dress application of solid sources and non-pressure solutions is almost as effective as in-soil placement.

Fertilization — Delta: For soils in this area, generally only nitrogen is needed for top production. Soil test for phosphate and potash needs.

Time: Nitrogen may be applied just before planting or in split application: if split, use one-third to one-half at or before planting and the rest as a side-dressing before the corn is knee high.

Rate: 100 to 160 pounds of nitrogen per acre, increasing the rate as the expected yield increases from 80 to 120 bushels per acre.

Method: Place preplant applications of nitrogen six or more inches from the drill row, non-pressure solutions and solid sources at a depth of four or more inches and anhydrous ammonia at a depth of five or six inches below the level of the seed. Sidedress applications of nitrogen should be placed one foot or more from the row, non-pressure solutions and solids at a depth of four inches and anhydrous ammonia at a depth of six inches. Surface application of solid sources and non-pressure solutions is only slightly less effective than in-soil placement.

Cotton in the Delta

Cotton in Hill Areas

Varieties: Results of variety tests are published annually in MAFES Research Highlights.

Seeding Dates and Rates: Plant between April 10 and May 10 as weather permits: hill dropped---use 16 to 22 pounds of machine delinted seed or 12 to 16 pounds of acid delinted seed per acre; drilled---use 20 to 30 pounds of machine delinted or 15 to 20 pounds of acid delinted seed per acre. Seed should be of good quality.

Fertilization: A complete fertilizer (NPK) containing sulfur and boron is needed in the Hill area. The fertilizer should supply 4 to 8 pounds of sulfur and 0.3 to 0.5 pounds of boron per acre. No more than 0.5 pounds of boron should be applied if the fertilizer is banded or drilled beside the row. Fertilizers for the dark upland soils of the Northeast Blackland area, having a pH above 6.0, should contain enough water-soluble magnesium to supply at least one-half and preferably as much magesia (MgO) as potash. On soils more acid than pH 6.0, magnesium deficiency may be corrected by applying dolomitic lime at the rate of one to two tons per acre, or as indicated by a soil test.

Acid soils should be limed according to soil tests to maintain the pH above 5.5.

Time: Apply the phosphate and potash and all or part of the nitrogen at or a few weeks before planting time.

On deep sandy or sandy loam soils with good to excessive internal drainage and on clay loam and clay soils with poor to slow surface drainage, sidedress one-half to two-thirds of the nitrogen for most effective results. Nitrate nitrogen is lost by leaching from the sandy and sandy loam soils and by denitrification from the clay and clay loam soils during extended periods of wet weather in late spring and early summer. Make sidedress applications preferably by mid-June (a week earlier for anhydrous ammonia or where you surface apply solid sources or non-pressure solutions) but no later than July 1.

On most soils, phosphate and potash may also be applied in the fall---see section on When to Fertilize, page 4.

Rate: A recent soil test summary shows that more than 50 percent of the soils tested for cotton in the Hill area were high in phosphate and approximately 35 percent were high in potash. An economic response to phosphate and potash is unlikely on high testing soils and only maintenance if any fertilization is justified. An annual application of 25 to 30 pounds of phosphate and potash is usually adequate for maintenance with current yields. *Accordingly, farmers now applying rates higher than these to high-testing soils have an opportunity to reduce fertilizer costs through soil testing.*

Without a soil test, the nitr (N) - phosphate (P_2O_5) - po (K_2O) should be approxim 72-48-48 pounds per acre exce follows: Increase the nitroge 120 pounds on the dark uplanc to 100 pounds on the bottom soils of the Blackland areas a 80 pounds per acre on the drained bottom and level to g sloping upland soils of the U Coastal Plain.

Excessive stalk growth delayed maturity indicate much nitrogen. Somewhat stu growth associated with yello green foliage and the early yel ing and premature shedding o leaves indicates too little nitro When these conditions are obs ed nitrogen rates should be justed accordingly.

Where a skip-row plan pattern is used, the rate of nitro per planted acre should be the s as for solid-planted cotton. In a 4 or a 2 x 2 planting pattern, it i vious that only one-half of the area is planted to cotton. Do no tilize the unplanted area.

Method: Same as for corn in Hill area. Contact placemen seed and fertilizer or placem directly beneath seed should avoided. Side-dress application nitrogen made after mid-J should be placed in the soil.

If a preemergence herbicide be broadcast and worked into soil, phosphate and potash app broadcast should be plowed d before the herbicide is applied.

Soybeans

Varieties: For all areas north of U. S. Highway 84, best adapted varieties are Hill, Mack, Forrest, Tracy, Davis, Lee 74, Pickett 71, and Bragg (listed in order of maturity).

South of U. S. Highway 82, best adapted varieties are Tracy, Pickett 71, Bragg, Hutton, Coker 338, and Cobb (listed in order of maturity). Forrest and Coker 136 are satisfactory where early maturing varieties are needed to fit into double cropping systems.

Soils: Soybeans are adapted to all Delta soils and to most soils of the Hill area, but lower yields may be expected on droughty soils, such as eroded and shallow upland soils.

Seeding Dates and Rates: May 1 to June 15 except extreme South Mississippi, May 20 to June 20. Plant 40 to 50 pounds of good seed per acre.

Inoculation: If not planted land where a crop of well-nodul soybeans has grown within the five years, the seed should be oculated. To be effective seed m be moistened slightly before ap ing inoculum, or else the inocu should be applied as a slu Applying inoculum dry into planter box is very ineffective.

Because of injury to the bacte culture. the inoculant and sod

olybdate or other soluble molybte salts should not be premixed more than 24 hours before being plied to beans that are planted mediately following treatment. e safest procedure is to apply the oculant and molybdate salt parately and then stir the bean roughly to assure treatment of beans.

On land where soybeans have t been grown previously, the fest procedure to insure good inulation is to apply the molybdate lt as a foliar spray as indicated ter rather than as a seed treatent. Proper inoculation is essenl for maximum yields and ofitable production.

Fertilization—Delta: Soyans do not require either osphate or potash on most Delta ils, but many soils need liming. e need for lime as well as osphate and potash can be deterined by a soil test.

Molybdenum usually is needed sandy loam, silt loam, and clay am soils having a pH below 6.0. e need for molybdenum is not as eat on the clay soils; however, elds may be increased in some inances, particularly where the pH below 5.5.

Molybdenum may be applied as a ed treatment or as a foliar spray. s a seed treatment, one-half ounce sodium molybdate per acre, or its uivalent, is recommended. As a liar spray, one ounce of sodium or mmonium molybdate per acre in 8 12 gallons of water is ecommended when or just before e soybeans begin to bloom. Seed eatment usually is more conenient and less expensive.

Fertilization - Hill area: In the ill area, phosphate, potash, sulr, molybdenum, and lime usually e needed for top yields. Nitrogen es not increase yields where lime d molybdenum are adequate and the soybeans are nodulated with effective strains of *Rhizobia*.

Soybeans do not respond profitably to phosphate and potash on soils testing high in these nutrients. On soils testing medium, rates that maintain soil fertility levels are adequate and with yields near 30 bushels per acre, an annual application of 30 pounds of phosphate and 60 pounds of potash per acre is sufficient. More than 50 percent of the soils tested for soybean production in 1975 by the Extension Soil Testing Laboratory were either medium or high in phosphate and potash. Soils testing low require rates in excess of maintenance, therefore fertilizer, as well as lime needs, are best determined by a soil test.

In the absence of a soil test, use a sulfur-containing mixed fertilizer of 0-1-1 or 0-1-2 ratio that supplies 4 to 8 pounds of sulfur per acre. On land where crops have been well fertilized for many years, such as cotton or soybeans, use a fertilizer of 0-1-2 ratio at a rate to give 30 pounds of phosphate and 60 pounds of potash per acre, except on clay loam and clay soils of the Blackland Areas. Elsewhere and when an 0-1-2 ratio is not available, use a fertilizer of 0-1-1 ratio at the rate of 40 to 50 pounds each of phosphate and potash. On land recently cleared or in pasture where little if any fertilizer was used, the fertilizer rate for the first 3 years should be about 70 pounds each of phosphate and potash per acre.

The fertilizer may be banded or broadcast. If banded, it should be placed 3 to 4 inches to one side and 3 to 4 inches deeper than the seed. Avoid contact placement with the seed as well as placement directly beneath the seed.

Where double cropping of soybeans and wheat is practiced, all of the phosphate and potash recommended for both crops may be applied to either crop. The fertilizer should be broadcast and worked into the soil.

A recent soil test summary shows that 70 percent of the soils tested for soybeans in the Hill area (excluding the Northeast Blacklands) need liming for top yields when molybdenum is not applied. At soil pH values below 5.5, liming not only increases the availability of molybdenum but also increases yields by correcting manganese and aluminum toxicity (especially manganese toxicity) which sometimes causes crop failure.

When molybdenum is applied only 30 percent of the soils tested need liming for top yields. The use of molybdenum on soils with pH of 5.5 or higher reduces the response of soybeans to lime because the major and possibly only result of liming is to increase the availability of native soil molybdenum. This in turn increases the nitrogen-fixing capacity of the nodule bacteria, which increases bean yields.

Farmers planning to apply lime should have their soils tested and apply lime first to those soils having a pH below 5.5. Even farmers who rent land for only one year may find it profitable to apply a ton of lime per acre, especially to soils of medium to coarse texture (sandy loam, silt loam and loams) with a pH below 5.5. On such soils, liming usually increases the yield two to four bushels per acre even though molybdenum is applied.

Many soils show some yield increase for molybdenum even when limed to pH 6.0 to 6.5. Accordingly, its use is recommended for soybeans on all soils of the Hill area, the rate and method of application being the same as for the Delta area.

Rice

Varieties: Long Grain - Starbonnet, Bluebelle, Lebonnet and abelle which mature in 135, 125, 125, and 118 days, respectively. Medium Grain - Nova 66, Brazos, and Vista which mature in 130, 124, and 123 days, respectively.

Seeding Dates and Rates: Rice can be seeded from mid-April

to mid-June, depending upon variety. The very early maturing varieties should not be planted until June. Plant 90 to 110 pounds if drilled and 110 to 135 pounds if broadcast or water seeded.

Fertilization: Most Delta soils need only nitrogen for top production. Soil test for phosphate and potash needs. Apply 110 to 135 pounds of nitrogen per acre on old cropland. New land will probably require no nitrogen for the first one or two years. The ammonium forms of nitrogen such as ammonium sulfate and urea are recommended. Nitrogen fertilizer may be applied: all at one time at the time the field is being flooded (full season, continuous flood must be maintained); or one-half when the field is being flooded and one-half at the correct "joing stage". This occurs wher first internode to elongate is half inch in length for Starbon three-fourths inch in length Bluebelle, Lebonnet and Lab and one and one-half inche length for Nova 66, Brazos Vista. Nitrogen may be app into the water; it is nei necessary nor advisable to d the field prior to fertilization.

Sorghums for Grain or Silage

Varieties for Grain: Non-bird-resistant varieties such as Funk's G 522, DeKalb E-57 and C-42y, Acco R 109-A and R 1090 and R 1029, and T-E Y-101 may be damaged by birds, but are adapted to Mississippi and have good disease resistance. When large populations of blackbirds are not present these hybrids will yield well and the grain will substitute for corn in livestock feed and will not be "docked" by commercial grain dealers. Bird-resistant sorghum grain has a lower feed conversion than non-bird-resistant grain and may be more difficult to market.

DeKalb BR-54 and Acco 1093 are bird-resistant varieties with good yield potential and have resistance to the leaf and stalk disease, anthracnose. The following bird-resistant hybrids will yield well if anthracnose does not develop: Funk's BR 79 and BR 630, and McNair 546.

Varieties for Silage: Most commercial sorghum silage hybrids are acceptable, however, some hybrids are a compromise between lower yield and higher quality forage. Grain sorghum hybrids may be used as a high grain, high quality silage crop. Non-bird-resistant grain sorghum hybrids are recommended for silage. Sugar and syrup varieties are to be avoided as a silage crop due to the high dry matter loss during the ensiling process.

Seeding Dates and Rates: Plant from April 20 to July 15. The earlier date is preferred because yields are higher and first harvest by July 25 permits a second cutting if soil moisture is adequate. Seed 5 to 7 lbs. per acre in rows.

Fertilization - Grain: In the Delta, generally only nitrogen is needed. *Test soils for phosphate and potash.* Depending upon the average yield, apply 80 to 130 pounds of nitrogen per acre: the lower rate for yields of 60 to 70 bushels per acre, the higher rate for yields of 100 to 120 bushels, and 100 pounds of nitrogen per acre for yields of 80 to 90 bushels.

In the Hills, phosphate and potash as well as nitrogen usually are needed. On good land, yields should be in the range of 80 to 100 bushels per acre and for such yields the nitrogen rate should be 100 to 120 pounds per acre. On other la yields are likely to be lower and nitrogen rate should be reduce 70 or 80 pounds per acre. E phosphate (P_2O_5) and pot (K_2O) should be applied at the of 30 to 40 pounds per acre.

Except on soils of very productivity, or because of extr weather conditions, yields sho be in the range of 60 to 100 bush per acre for early plantings wh good cultural practices are foll ed. Average yields for late pl ings (after July 1) are considera lower.

Where a stubble crop is gro apply an additional 40 to 60 pou of nitrogen per acre after the f crop. All of the phosphate a potash and all or part of nitrogen may be applied at or pr planting. Nitrogen sidedres should be applied by the time plants are a foot tall - six to leaves showing.

Method: Same as for corn in Hill areas.

Fertilization - Silage: Sam for grain except double the rat potash.

Sorghums for Syrup

Varieties: Dale, Brandes, and Theis.

Seeding Dates and Rates: Sweet sorghum in Mississippi should be planted during the first half of May. Plant two pounds of seed per acre in 40-inch rows. The best spacing averages one plant every six inches in the drill or four plants every 24 inches in hills.

Fertilization: At planting, apply 40 to 50 pounds each of nitrogen, phosphate (P_2O_5) and potash (K_2O) per acre. No side-dressing should be applied later.

Harvesting: Sweet sorghum should be harvested in the dou stage of seed development for maximum yield of high qual syrup. Syrup quality is impro by stripping the leaves, remov the heads and the top joint, a delaying milling for a week a the stalks are cut.

Sugarcane for Syrup

Varieties: Plant C.P. 36-111 and P. 67-500, on deep, well drained ils of light texture.

Seeding Dates and Rates: Cut d cane at the top mature joint l at ground level, but do not strip ore planting. Plant in the Fall tober 15) at the rate of two lks, that is, place stalks end to l with a whole stalk at the union. nt the cane in four-foot rows on d that has been broken five to six inches deep a few weeks earlier. To protect from cold and to provide good drainage, cover the cane six to eight inches deep by forming a ridge over it so that the drainage furrows between the rows are two to four inches deeper than the cane.

Fertilization: In the spring, apply 40 to 50 pounds each of nitrogen, phosphate (P_2O_5) and potash (K_2O) per acre shortly after germination of the eyes or just before regrowth from stubble. Place the fertilizer in a band so that it will be four to six inches to the side of the row and three to five inches deep after the ridges have worked down (one to two inches deeper than the cane).

Harvesting: Strip, top and cut the cane before freezing weather. Harvesting as much as a month before processing improves syrup quality and reduces "sugaring."

Peanuts

Varieties: *Spanish type*---Star, Span, Spancross, Spanhoma, Comet.
unner type---Florunner
irginia type---Florigiant
rowers should be sure of a ket before choosing a variety or ting a marketable acreage.

lanting Dates: April 1 to May South Mississippi and April 15 May 15 in North Mississippi.

noculation: Planting seed ays should be inoculated with appropriate strain of *Rhizobia.*

oils and Fertilization: Well drained sandy loam soils should be selected for peanuts---heavy soil may present harvesting problems. Soil should be limed to a pH of 5.8 or higher. Soils in the Western part of the Delta generally do not require fertilization for peanut production. In other areas of the state, broadcast and plow-down 80 pounds each of phosphate and potash. The fertilizer should also contain enough boron to provide about 0.5 pounds per acre. A soil test is the best way to determine lime and fertilizer needs.

Peanuts do not require fertilization with nitrogen if properly inoculated. However, in some areas of the Southeast, 20 to 30 pounds of nitrogen per acre is recommended on Spanish types. Peanuts should not be planted behind either soybeans or peanuts. Crop residues should be buried deeply by plowing in the fall as a disease control measure. Commercial producers should check with their county agent for more details about production practices.

Grasses, Legumes, and Small Grains

lection of Varieties: The use rtified seed will reduce the risk nfestation with noxious weed and will result in better perfor- ce.

Grass or Grass-Legume Mix- rs: In most instances a grass- me mixture will provide less ex- ive and more nutritious ure forage than grass grown e and fertilized with nitrogen. mes not only improve quality they minimize or eliminate s from such maladies as grass y, fescur foot and nitrate oning. Proper use of forage mes may result in better use of resources by increasing total uction, and extending the ng season. Therefore, where ical, new pastures should be ted to the desired grass plus r more legumes. Major considerations in the choice of the legume species are the availability and price of seed and the time that forage will be needed.

Grass-legume mixtures for winter pastures sometimes "grow off" more slowly than grass alone fertilized with nitrogen; therefore, it may be advisable to plant a portion of the winter pasture to grass (small grain and ryegrass) alone and fertilize with nitrogen as recommended in the tables.

Inoculation of Clovers: All seed of clovers and other forage legumes should be inoculated with the proper culture of *Rhizobia* before planting. For inoculation to be effective the bacteria must be viable and they must be made to adhere to individual seed. This can be done by treatment with a commercial sticker before mixing the inoculant with the seed. *It is imperative that seeds of new clovers like Arrowleaf be inoculated.*

Planting: Where equipment is available, drill or band placement of seed and fertilizer usually is more effective for the establishment of most pasture and forage crops.

With small-seeded legumes and grasses, care must be taken not to plant the seed too deeply. A seeding depth of no more than ten times the diameter of the seed is recommended. Where plantings are made by broadcasting the seeds on the soil surface, it is advisable to cultipack the seedbed immediately after seeding.

Renovation of Grass-Legume Pasture: Where the stand of legumes in a pasture has degenerated to less than 15 percent

or has been lost entirely, it would pay to reseed legumes. This is best done in the fall season. The pasture should be closely grazed or mowed for hay and the clover seed broadcast or drilled. A fertilizer containing phosphorus and potash should be applied, preferably as indicated by a soil test.

Fertilization General: Seventy percent of the soils tested for pasture and forage crops in the Hill area need liming for top production of legumes, grown alone or in mixtures with grasses. Fertilization of grasses with phosphate and potash is of little or no benefit unless they are grown in association with a legume or fertilized with nitrogen. Therefore, it is essential that land used for legumes and grass-legume mixtures be properly limed. Weeds compete with desirable species for space, nutrients, and moisture, therefore, weed control is necessary to obtain maximum response to fertilizers. *There is no profit in fertilizing weeds or brush.*

Because of the wide variety of soils to which these guidelines for fertilization of pasture and hay crops will be applied, and of the extensive nature of the typical commercial livestock operation in Mississippi, particularly beef cattle, the fertilizer guidelines are generally presented as a range rather than a single more arbitrary figure.

The lower rate is estimated to be sufficient (1) for reasonable yields of forage on soils well adapted to the particular pasture crop under consideration, (2) for periods of economic stress during which it is still necessary to maintain a reasonable supply of forage in the least expensive manner, and (3) where acreage per animal unit is not a seriously limiting factor.

The higher rate should be used where the (1) soil type, (2) management systems, (3) type of livestock enterprise, and (4) prices of fertilizer and livestock are such as to justify it.

An estimate of the fertilizer requirements for the production of 100 pounds of beef in different enterprises on soils testing low in phosphate and potash is shown in Table 1.

With current beef and fertilizer prices (Fall, 1975) it is not profitable to fertilize permanent pastures with phosphate and potash at soil test levels of medium and higher. Therefore, cattlemen are encouraged to test their soils and use phosphate and potash on those testing low to very low where the need is much more critical.

Fall application of phosphate or potash to pastures is recommended if these nutrients are necessary to establish forage seedlings in the fall. However, spring application is slightly more effective for spring and summer growth of perennial plants and those which come up in the spring. *In general, fertilizers should be applied as close as practical to the time they are to be used by plants, therefore seasonal, annual applications are indicated in Tables 2, 3 and 4. If phosphate and potash are applied only once in two years, double the annual application rate.*

Utilization of Forage: To obtain the benefits from fertilizer applied to pastures, livestock producers must adjust the stocking rate to use the additional forage efficiently, or harvest it for hay.

Fertilization of Grass-Legume Mixtures: Grass-legume mixtures should be fertilized to meet the needs of the legume for phosphate, potash and lime. Liming practices and phosphate and potash rates that are sufficient for the legume will also be adequate for the grass. Because of symbiotic fixation by the nodule bacteria, legumes provides their own nitrogen and indirectly increase the amount of nitrogen available to grass. The application of nitrogen to grass-legume pastures reduces the nitrogen-fixing efficiency of the legume. Therefore, it usually is unwise to fertilize permanent grass-legume mixtures when the legu constitutes 15 percent or mor the stand.

Where permanent grass past are overseeded annually with c son or arrowleaf clovers, or wi ryegrass-clover mixture, application of nitrogen in spring and early summer ma advantageous if additional fo is needed. It should be recogn that the extra forage must be re ed to a short stubble by inten grazing or by close mowing for for successful overseeding or fo taining stands where clovers h re-seeded.

Caution: When conditions ar pecially favorable for legumes danger of bloat may prevent full utilization when seeded a or with grasses to give mix such as Dallisgrass and v clover. An excellent way to re the danger of bloat while produ additional forage is to drill wheat or ryegrass (also orcl grass in North Mississippi) such pastures. The danger of can be avoided by providin grazing animals with poloxal chemical that prevents bloat

Fertilization of Gr Pastures: The yield of forages is greatly increase nitrogen fertilization and v weather conditions do not growth, excellent response i tained to high rates of nitroge example, the response of gr such as Dallisgrass, commo mudagrass, sorghum-s hybrids, bahiagrass, and rye small grain mixtures is some linear to rates of nitrogen as as 200 to 300 pounds per acr for Coastal and Alicia mudagrass this type of res may extend to rates greater 400 pounds per acre. The economical rate of nitrogen v pend upon the weather, the ef cy of forage utilization an economic trends.

To increase the efficien nitrogen and to obtain a

orable distribution of forage duction, split applications of ogen are recommended for both mmer and winter pastures. plications may range from 45 to pounds per acre. Except for stal and Alicia bermudagrass ere the last application may be early August, the last applica- of nitrogen to permanent mmer pastures should be made by mid-July, and two weeks earlier if anhydrous ammonia is used. Because of the frequency of drought, mid-summer applications of nitrogen are usually less effective than applications of nitrogen made in the spring and early summer.

For summer temporary grazing crops, one-half of the nitrogen should be incorporated into the seedbed with phosphate and potash before planting. The remainder should be applied in one or two applications after grazing or cutting.

Caution: Excessive amounts of nitrogen applied in a single application may result in nitrate poisoning, or contribute to grass tetany.

Table 1. Approximate Fertilizer Requirement for the Production of 100 Pounds of Beef from Pastures on Soils Testing Low in Phosphate and Potash when Fertilized as Recommended in Tables for the Hill Area.

Type of Pasture	Enterprise and Pounds of Fertilizer for 100 Pounds of Beef					
	Cow-Calf[1]			Steer Grazing[2]		
	N	P_2O_5	K_2O	N	P_2O_5	K_2O
Coastal Bermuda	75	25	25	54	18	18
Bahiagrass, Dallisgrass, Common Bermuda, or Fescue	90	30	30	63	21	21
Ryegrass or Wheat - Ryegrass Mixture	138	60	30	54 75	24 34	12[3] 17
Sorghum - Sudan Hybrid	138	46	46	75	25	25
Dallisgrass and/or Common Bermuda or Fescue with White Clover	0	64	64	0	42	42
Coastal Bermuda overseeded with Crimson or Arrowleaf Clover	0	64	64	0	42	42
Ryegrass-Crimson Clover Mixture	0	60	60	0 0	30 40	30[3] 40

[1]**Based on the annual feed requirements for maintenance and replacement of brood cows and sires and growth of calves to 450-500 pounds with a calf crop of 85 to 90 percent.**

[2]**Average grazing weight of 700 pounds.**

[3]**Average grazing weight of 500 pounds.**

Table 2. Guidelines for Delta Pasture and Small Grain Crops

Pasture or Hay Crop	Recommended Varieties	Rate of Seeding Per Acre	Time of Planting	Fertilization, lbs.-A [1] Annual Application
Alfalfa	Cody, Delta and Florida 66	15-20 lbs.	Sept.-Nov.	Test soil for lime, Phosphorus, and potash needs
Bermudagrass	Coastal or Alicia	20 bu. sprigs. or 1200-1500 lbs. fresh forage disked in	Feb.-May [2] June-Aug.	150-240 lbs. N, 2-3 applications beginning June 1, for grazing; for Hay, 300-400 lbs. N
Bermudagrass White Clover	Regal or La.S-1	2 lbs.	Plant Clover Sept.-Nov.	Test soil for lime, phosphorus, and potash needs.
Fescue and White Clover	Kentucky-31 Regal, La.S-1, Nolin or Tillman	Fescue 10-15 lbs. Clover 3 lbs.	Oct.-Nov. Feb.-May	Test soil for lime, phosphate, and potash needs [3]
Red Clover	Orbit, Kenland or Nolin's Red	10-15 lbs. seed alone or in small grains	Sept.-Nov.	Test for lime, phosphate, and potash.
White Clover	Regal, La.S-1 Nolin or Tillman	2-3 lbs.	Sept.-Nov.	Test soil for lime, phosphate and potash.
Arrowleaf Clover[4]	Meechee or Yuchi	12-15 lbs.	Sept.-Nov.	Test soil for lime, phosphate, and potash.
Sorghum-Sudan hybrids	Commercial Varieties	20 lbs. in rows 35 lbs. broadcast	Apr.-July	60 lbs. N prior to planting 60 lbs. N after 1st and 2nd cutting.
Annual Lespedeza	Climax or Summit	20-25 lbs. seed in small grains	Feb.-Apr.	Test soil for lime, phosphate, and potash.
Oats	Coker 227, Coker 234, Florida 501, or Coronado	120 lbs. for grazing 90 lbs. for grain	For grazing: early Sept. For grain: mid-Oct.	Grazing: 120-180 lbs. N split-fall and spring. Grain: 50-60 lbs. N about March 1-March 15.
Wheat	Arthur 71, Abe, Coker 68-15, or Oasis	120 lbs. for grazing 90 lbs. for grain	Same as Oats	Grazing: Same as Oats Grain: 90-100 lbs. N about March 1.
Rye	Acco 118, Explorer, Elbon McNair's Vitagraze or Wren's Abruzzi	120 lbs. for grazing	Same as Oats	Grazing: Same as Oats Grain: 90-100 lbs. N about March 1.
Barley[5]	Dayton, Harrison, or Jefferson	Same asWheat	Same as Oats	Same as Oats

[1]**All areas should be tested for lime, phosphorus, and potash needs.**
[2]**If irrigated, Coastal may be planted from April 1 to Sept. 1.**
[3]**Where clover disappears in the grass-clover mixture apply 60 lbs. N in the fall.**
[4]**Specify scarified seed.**
[5]**Barley yields are generally quite low except in extreme North Mississippi. Barley yellow dwarf disease is a serious problem and none of the varieties are resistant.**

(Table 3 continued next page)

Table 3. Guidelines for Pastures and Forages in Hill Area

Pasture of Hay Crop	Recommended Varieties	Rate of Seeding Per Acre	Time of Planting	Fertilization, lbs.-A [1] Annual Application
Established Warm Season Grasses (Permanent)				
Bahiagrass	Pensacola, Wilmington, (Argentine-South Mississippi only)	20 lbs./A	Feb.-May [2]	120-160 lbs. N in split applications and 30 to 40 lbs. each of P_2O_5 and K_2O. Total application in a 4-1-1 ratio.
Bermudagrass	Common	5lbs. seed	Feb.-May	Same as for Bahiagrass
	Coastal	20 bu. of sprigs	Feb.-May If irrigated plant as late as Sept. 1.	For Grazing: 120 to 200 lbs. N in split applications and 30 to 50 lbs. each of P_2O_5 and K_2O. Total application in a 4-1-1 ratio. For Hay:
		1200 to 1500 lbs. fresh forage disked in	June-Aug.	200 to 300 lbs. N in split application; 50 to 90 lbs. of P_2O_5; 100 to 180 lbs. K_2O. Total application in a 4-1-2 ratio.
Dallisgrass	Commercial	10 lbs. (live seed)	Feb.-May	Same as Bahiagrass.
Johnsongrass	Commercial	15-25 lbs. (live seed)	April 1 to May 15	Same as for Coastal Bermudagrass
Established Cool Season Grasses (Permanent)				
Tall Fescue	Alta, Kentucky-31	15 lbs.	Sept.-Nov.	80 to 120 lbs. N, split-fall and spring; 40-60 lbs. each of P_2O_5 and K_2O in a 1:1 ratio.
Orchardgrass (North Miss. only)	Potomac or Boone	15 lbs.	Sept.-Nov.	Same as Tall Fescue
Warm Season Grass-Legume Mixtures (Permanent)				
Bahiagrass Bermudagrass Dallisgrass with one of the following legumes.		As before As before	As before	Establishment: 60 to 90 lbs. of P_2O_5 and K_2O in a 1:1 ratio and 0.5 lbs. of boron Maintenance: 40 to 60 lbs.
White Clover	Regal, La.S-1 Nolin or Tillman	3 lbs.	Sept.-Nov.	each of P_2O_5 and K_2O in a 1:1 ratio and 0.5 lbs. of boron.
Crimson Clover	Dixie, Chief, Autauga	25 lbs.	Sept.-Nov.	Same as for White Clover

(Table 3. Continued from last page)

		15 lb. lbs.	Sept.-Nov.	Same as for White Clover
Subterranean Clover	Mt. Barker, Woogenellup, or Tallarook	12-16 lbs.	Sept.-Nov.	Same as for White Clover
Annual Lespedeza	Climax or Summit	25 lbs.	Feb.-Apr.	Establishment: 60 lbs. each of P_2O_5 and K_2O in a 1:1 ratio. Maintenance: 40 lbs. each of P_2O_5 and K_2O.
Johnsongrass with One of the following for hay:	Commercial	15-25 lbs.	Feb.-June	Establishment: 120 to 160 lbs. each of P_2O_5 and K_2O
Alfalfa	Florida 66, Delta	(live seed	Sept.-Nov.	Maintenance: 60 to 80 lbs. P_2O_5 and 180 to 240 lbs. K_2O in a 1:3 ratio plus 1.0 lb. of boron
	Cody	15 lbs.	Sept.-Nov.	
Red Clover	Orbit, Kenland, Chesapeake. or Nolin's Red.	10 lbs.	Sept.-Nov. or March-April on clean land.	Same as with Alfalfa.
Rough Peas	Commercial, also known as Caley, Singletary, Wild Winter Peas	30 lbs.	Sept.-Oct.	60-90 lbs. P_2O_5 and 120 to 180 lbs. K_2O in a 1:2 ratio, 120 lbs. N after peas mature.
Warm Season Grasses (Annual or Temporary)				
Millet	All hybrid Varieties	15 lbs. in rows 35 lbs. broadcast	Apr.-June	120-150 lbs. N, split application; 60 lbs. P_2O_5 and 60 lbs. K_2O.
Sorghum-Sudan	Commercially available varieties	15 lbs. in rows 35 lbs. broadcast	Apr.-June	120 to 180 lbs. N in split applications; 60 lbs. P_2O_5 60 lbs.K_2O
Cool Season Grass-Legume Mixtures (Annual or Temporary)				
Annual Ryegrass with one of the following:	Gulf Magnolia, Blends (common in North Miss. only)	25 lbs.	Sept.-Nov.	60-80 lbs. each of P_2O_5 and K_2O in a 1:1 ratio at seeding time.
Arrowleaf Clover[3]	Meechee or Yuchi	10 lbs.	Sept.-Nov.	
Crimson Clover	Autauga. Chief Tibbee, or Dixie	20 lbs.	Sept.-Nov.	
Subterranean Clover	Mt. Barker, Woogenellup, or Tallarook	12-16 lbs.	Sept.-Nov.	
Annual Ryegrass and wheat or oats with legumes (as with ryegrass)	As above	25 lbs.	Sept.-Nov.	Same as Above
	See wheat and oats	90 lbs.	Sept.-Nov.	
Small Grains and Legume (as with ryegrass)	Oats, rye or wheat (see varieties under grass)	90 lbs. of small grain	Sept.-Nov.	Same as Above

(Table 3 continued next page)

(Table 3. Continued from last page)

Cool Season Grass-Legume Mixtures (Permanent)				
Tall Fesuce or Orchardgrass [4] with	Alta, Kentucky-31 or Goar	10 lbs. in 20" rows	Sept.-Nov.	Establishment: 60 to 90 lbs. each of P_2O_5 and K_2O in a 1:1 ratio
	Commercial, Boone or Potomac	10 lbs.	Sept.-Nov.	Maintanence: 40-60 lbs. each of P_2O_5 and K_2O in a 1:1 ratio.
White Cover	Regal, Tillman, La.S-1 or Nolin	3 lbs.	Sept.-Nov.	
Annual Cool Season Grasses and Small Grains				
Annual Ryegrass	Gulf or Magnolia (Common in North Miss. only)	30-40 lbs.	Sept.-Oct.	120 to 220 lbs. of N, split fall and spring; 60 to 80 lbs. P_2O_5 and 30 to 40 lbs. K_2O in a 2:1 ratio
Barley (Grain only) [5]	Harrison, (Barsoy), Jefferson, Keowee or McNair 601	90 lbs.	Oct.-Nov.	10-20 lbs. N, 30-40 lbs. each of P_2O_5 and K_2O at seeding. Topdress with 60 to 90 lbs. N about March 1.
Oats	Coker 234, Coker 227, Florida 501, or Coronado	For Forage: 120 lbs.	For Forage Sept.-Nov.	Same as Ryegrass.
		For Grain 90 lbs.	For Grain Oct.-Nov.	Same as Barley, use lower rate of nitrogen
Rye	Abruzzi, Balboa Elbon, Explorer Vitagraze	For Forage: 120 lbs.	For Forage: Same as Oats	Same as Ryegrass
		For grain: 90 lbs.	For grain: Oct.-Nov.	Same as Barley
Wheat	Abe, Arthur-71, Coker 68-15, or Oasis	For Forage: 120 lbs.	Same as for Rye	Same as Ryegrass.
		For Grain: 90 lbs.		10-20 lbs. N, 40 lbs. each of P_2O_5 and K_2O at planting. Topdress with 90 to 100 lbs. N about March 1.
Legumes [6]				
Alfalfa (Hay)	Florida 66, Delta, or Cody	15-20 lbs.	Sept.-Nov.	Establishment: 120 to 160 lbs. each of P_2O_5 and K_2O in a 1:1 ratio and 1.5 lbs. boron. Maintenance: 60-80 lbs.

Arrowleaf Clover [3]	Meechee or Yuchi	10 lb.		60 lbs. each of P_2O_5 and K_2O in a 1:1 ratio for Seed-production add 0.5 to 1.0 lb. boron.
Austrian Winter Peas	Commercial	50 lbs.	Sept.-Oct.	Same as for Arrowleaf Clover
Crimson Clover	Autauga, Chief, Dixie or Tibbee	20-30 lbs.	Sept.-Oct.	Same as for Arrowleaf Clover
Lespedeza (Annual)	Climax, or Summit	25 lbs.	Feb.-Apr.	Same as for Arrowleaf Clover
Sericea (Perennial)	Serala, or Commercial	30 lbs.	Feb.-June	Same as for Arrowleaf Clover
Red Clover (Hay).,	Orbit, Kenland, Chesapeake, or Nolin's Red	10 lbs.	Sept.-Nov. Mar.-Apr.	Established: 60 to 90 lbs. each of P_2O_5 and K_2O in a 1:1 ratio. Maintenance: 50 lbs. P_2O_5 and 100 lbs. K_2O in a 1:1 ratio. Maintenance: 50 lbs. P_2O_5 and 100 lbs. K_2O in a 1:2 ratio.
Rough Pea	Commercial-also known as Singletary, Caley and Wild Winter peas.	40 lbs.	Sept.-Oct.	Same as for Arrowleaf Clover.
Subterranean Clover	Mt. Barker, Woogenellup, or Tallarook	12-16 lbs.	Sept.-Nov.	Same as for Arrowleaf Clover
Vetch	Warrior	30 lbs.	Sept.-Oct.	Same as for Arrowleaf Clover
White Clover	Regal, La.-S1	3 lbs.	Sept.-Nov.	Same as for Arrowleaf Clover

[1]Established stand. If clipped for hay, increase the K_2O rate about 30 pounds for each ton of hay. If phosphate and potash are applied on alternate years, double the annual rate.

[2]When irrigated, Coastal may be planted from April 1 to September 1.

[3]Specify scarified seed.

[4]Use orchardgrass in North Mississippi only.

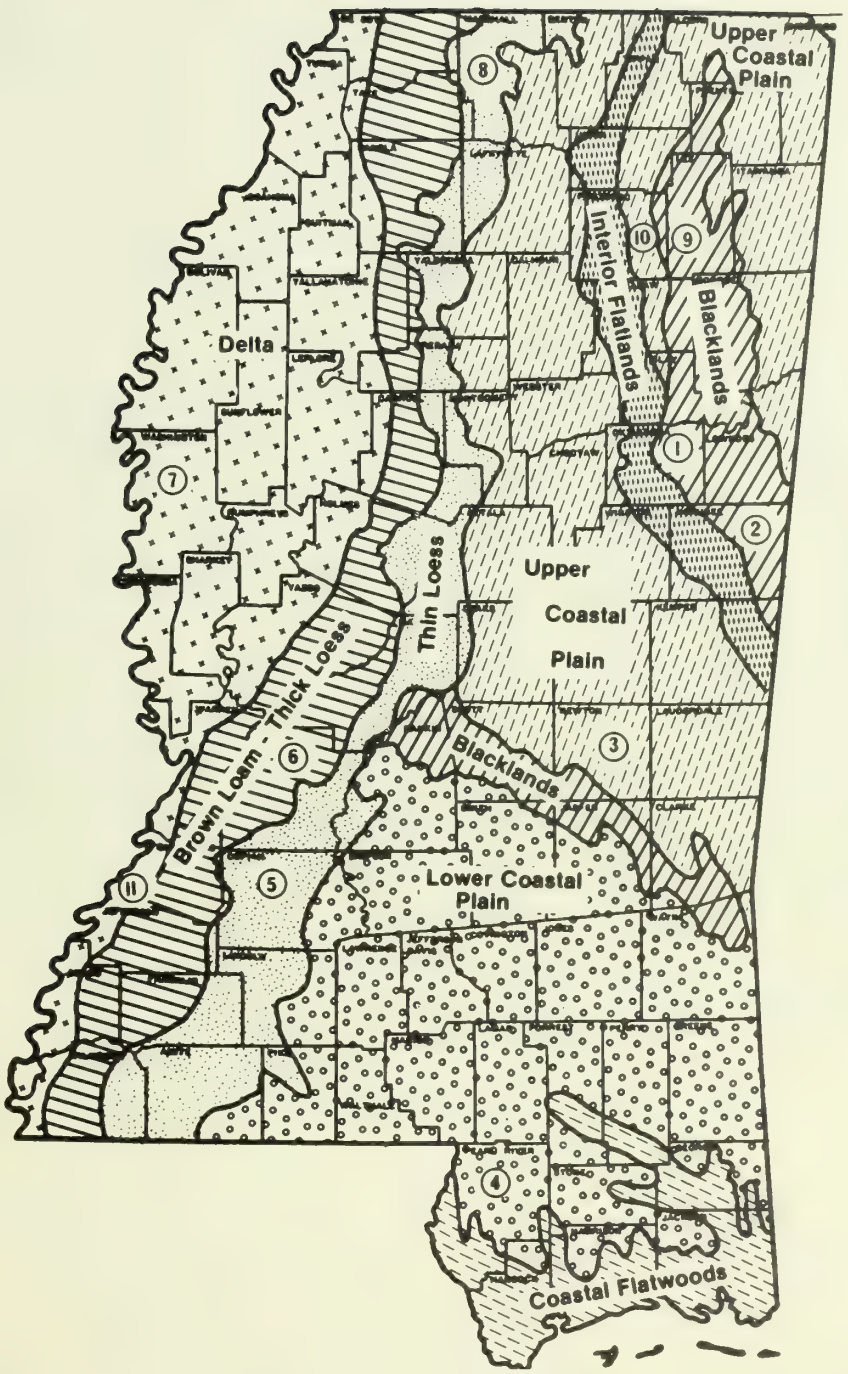
[5]Barley yields are generally quite low except in extreme North Mississippi. Barley yellow dwarf disease is a serious problem and none of the varieties are resistant.

[6]All legume seed should be inoculated with the proper culture immediately before planting.

Table 4. Guidelines For Lawns and Similar Turf Areas

Grass	Recommended Varieties	Method of Planting	Rate of Planting	Fertilization per 1000 Sq. ft. per Yr. [1]
Bahiagrass	Pensacola or Wilmington	Seed	5-10 lbs/1000 sq. ft.	6 lbs. nitrogen 2 lbs. P_2O_5 4 lbs. K_2O split into 4 applications
Bermudagrass	Common	Seed	2 lbs/1000 sq. ft.	6-8 lbs. nitrogen
	Tiflawn, Ormond Tifway or Tifdwarf	Sprig or plug	Sprig or plug 6-12 ins. apart on 6-12 in. rows	2 lbs. P_2O_5 4 lbs. K_2O split into 4 applications
		Stolonize	2-5 bu./1000 sq. ft	
Carpetgrass	Common	Seed	5 lbs/1000 sq. ft	2-3 lbs. nitrogen 1 lb. P_2O_5 1-2 lbs. K_2O, split into 2-3 applications
Centipedegrass	Common, or Oklawn	Seed or Sprig or plug	4 oz./1000 sq. ft Sprig or plug 6-12 ins. apart on 6-12 in. rows	Same as carpet
Fescue	K-31	Seed	7-10 lbs./1000 sq. ft	4 lbs. nitrogen (2 in fall, 2 in spring) 2 lbs. P_2O_5 and 4 lbs. K_2O
Ryegrass	Gulf or Magnolia	Overseed permanent lawns	8-10 lb./1000 sq. ft.	1 lb. nitrogen in January and March
St. Augustine grass	Common	Sprig or plug	Sprig or plug 6-12 in. apart on 6-12 in. rows	Same as bahia
Zoysiagrass	Emerald, Matrella, or Meyer	Sprig or plug	Sprig or plug 6 in. apart on 6 in. rows	Same as bahia

[1]When establishing a new lawn incorporate 2-3 lbs. of N; 4-6 lbs. of P_2O_5 and 2-3 lbs. of K_2O per 1000 sq. ft. into the seedbed before planting.



This map shows land resource areas of the state and how Experiment Station locations fit into them. Number 1 is the headquarters at Miss. State. Branch stations are: 2 Brooksville, 3 Newton, 4 Poplarville, 5 Crystal Springs, 6 Raymond, 7 Stoneville, 8 Holly Springs, 9 Verona, 10 Pontotoc, and 11 Alcorn.

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COST OF PRODUCTION ESTIMATES FOR MAJOR CROPS, MISSISSIPPI DELTA, 1976

By

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FOREWORD

Data presented in this report were developed to support research by the Mississippi Agricultural and Forestry Experiment Station and the Commodity Economics Division, Economics Research Service, USDA. Although this information has been developed for use in the Delta area of Mississippi, it can be easily adapted for use in other areas. Admittedly, the information presented in this report will not fit every conceivable situation in the Delta. By using the general framework presented herein and the procedures suggested or implied in this report, enterprise budgets may be developed readily for other situations.

This report updates portions of Mimeograph Report No. 30, "Budgets for Major Farm Enterprises in the Mississippi River Delta of Arkansas, Louisiana, and Mississippi" [2], Bulletin 794, "Crop Budgets and Planning Data for Major Farm Enterprises in the Yazoo-Mississippi Delta" [4], and Bulletin 834, "Crop Budgets and Planning Data for Major Farm Enterprises in the Mississippi-Louisiana Delta, 1975" [5].

Budgets were reported for the major crops produced in the Mississippi-Louisiana Delta in 1975 by soil type, equipment size, and for various levels of inputs (high input practices, usual input practices, more efficient input practices, limited seedbed preparation, etc.) [5, 6, 7, 8, 9]. This publication reports only the usual level of inputs and practices for soybeans, rice and wheat. Two levels of inputs and practices (usual and limited seedbed preparation) are reported for cotton.

ACKNOWLEDGEMENTS

Special appreciation is extended t cooperating producers who pvided the basic information on practices used in this study. The rious tractor-equipment dealers a d other input dealers who provided information on current and projected prices are also gratefully acknowledged.

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COST OF PRODUCTION ESTIMATES FOR MAJOR CROPS, MISSISSIPPI DELTA, 1976

INTRODUCTION

This publication provides information on production practices and production costs for various crops grown in the Delta area of Mississippi. Current production practices and costs associated with various agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and others working in agriculture.

DATA AND PROCEDURE

The information presented in this report was developed from a study of farm practices conducted from 1966 through 1972 [4]. To update these data, spot checks on practices and performance rates of new equipment were obtained from 8 selected farmers in the Mississippi Delta area during August 174 [5]. This report incorporates additional information obtained from cooperating farmers during the 1975 production season.

To determine the most profitable combination of enterprises for individual farms or the most profitable adjustments for an area, three items of information are required. They are: (1) enterprise inputs and costs and returns for the various enterprise possibilities; (2) kinds and amounts of resources controlled; and (3) amount of these resources used by individual enterprises. This report is concerned with the first of these---enterprise inputs and costs and returns.

Enterprise budgets presented in this report include the more important crops produced on the two major soil groups in the area. The budgets are generally identified as being appropriate to sandy or clay soils. Sandy soils include sandy loams, fine sandy loams, loamy silt loams, and similar soils. The clay soils consist of silty clay loam, silty clays, and clay. Where soils do not materially affect inputs or yields, the budgets are identified as applicable to all soils.

Prices used in the budgets were developed from several sources. Machinery prices were obtained in late 1975 from Delta area farm equipment dealers and reflect their best judgement as to expected 1976 prices. Tractor and machinery prices and related data used in this report are included in Table 1.[1] Prices for agricultural chemicals, planting seed, fertilizers and other budget input materials were obtained from area dealers in late 1975 (Tables 2 and 3). Charges for aerial application of fertilizer, insecticides, herbicides, defoliants, and seed were obtained from aerial applicators in the area during October, 1975 (Table 4).

Commodity prices reflect estimated 1976 market prices at harvest for each crop as of November, 1975. Due to recent wide fluctuations in commodity prices, a lower and higher price was selected to provide income data for each commodity over a wider range of potential prices.

POWER AND MACHINERY COSTS

In addition to estimated 1976 prices for farm machinery, Table 1 presents the performance rate, estimated length of life, average hours of annual use, and repair costs expressed as a percentage of new cost for each item of equipment. These estimates also are based on prices expected in 1976. Direct and fixed costs per hour and per acre are presented for most items. Tractor costs are presented only as per hour costs. Cost per acre for tractors must be calculated by multiplying per hour costs by the performance rate of the tractor drawn implement being used.

Length of life of equipment was obtained from 1961 to 1972 reports [2, 4] with adjustments for equipment that has come into use since these reports were issued. The length of life for each item assumes that it will be used until it has zero salvage value. Performance rates and average hours of annual use were determined from field records kept by farmers in the area [4]. Four performance rates have been adjusted since similar budgets were published in 1975 [5]. They are: (1) cotton picker-first picking, modified from .79 hour per acre to .75 hour per acre; (2) cotton picker-second picking, modified from .59 to .55 hour per acre; (3) rice grain

[1] *For convenience all tables are placed after the text.*

cart, modified from .44 to .48 hour per acre; and (4) levee plow, modified from .04 to .05 hour per acre.

Repair costs are based on estimated total repairs over the life of the equipment, and are expressed as a percentage of new cost. These estimates were based on unpublished data from the National Cotton Costs Surveys of the Economic Research Service, USDA. Repair costs as a percentage of new cost have been adjusted for all tractors to reflect the lower repair costs associated with larger diesel-fueled trac currently in use. Repair cost clude parts, labor, tires, battery replacement. Repairs one component of direct machi costs and are computed as foll

$$\text{Purchase price} \times \frac{\text{repairs as a percent of new cost}}{\text{Total hours of life}} \times \text{Performance rate} = \text{Repair cost per acre}$$

The other components of direct machinery costs include fuel, oil, other lubricants, and hydraulic fluid. Costs of these are based on estimated average fuel consumption per hour of use and the price per unit of fuel ($0.375 per gallon for diesel fuel). Fuel consumption rates have been estimated for all self-propelled equipment (tractors, combines and high clearance sprayer) to reflect average consumption rates over all operations as experienced by farmers during 1974-75 and by the Delta Branch Experiment Station at Stoneville over a 2-year period (1973-75).

Estimated average annual hours of use have been reduced from 1,000 to 700 for all tractors and increased from 200 to 300 for soybean/wheat combines and rice combines to reflect long term trends in the utilization of these particular pieces of farm machinery.

Fixed costs include depreciation and interest on machinery investment. Depreciation is based on estimated total hours of use over the life of the machine, and is computed by dividing purchase p by the total number of hours of This gives a depreciation cost hour which is multiplied by pe mance rate to determine depre tion cost per acre.

Charges for interest machinery investment are mad the basis of average annual in ment and annual hours of use terest is calculated at a rate of 9 cent per annum, and charges hour of use are computed follows:

(1) $\frac{\text{Purchase price}}{2} \times 9 \text{ percent} = \text{Total annual interest}$

(2) $\frac{\text{Total annual interest}}{\text{Average hours of annual use}} = \text{Interest per hour of use}$

(3) Interest per hour of use x Performance rate = Interest per acre.

Total machinery costs per acre include depreciation, interest on investment, repairs, fuel where applicable, and oil and other lubricants. If a combination of machines or equipment is required to perform a single operation, the total cost per acre of use of all equipment used in the operation is shown in the budget. Details of the procedure for computing direct fixed machinery costs available in other publication 5].

ENTERPRISE BUDGETS

The basic technique used in this report is enterprise budgeting. Budgets for the different crops, soil situations, and equipment size were constructed on automatic data processing equipment. Each budget lists and describes all operations used to produce the crop. If an operation is followed by a times sign and a whole number (such as X2), it is repeated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "apply lime X1/6", means that lime would be applied every 6 years, and the listed costs are one-sixth of total cost for that operation. The month the operation is usually performed is indicated along with direct and fixed tractor and equipment costs, labor c materials costs, and miscellan costs.

Labor is charged at a rate of per hour. Miscellaneous cost clude charges for custom serv hauling costs, ginning, drying storage costs where appropria charge of 9 percent for intere operating capital is incl Operating capital includes items except fixed costs

asumes that operating capital is borrowed. Interest charges on operating capital are for the period of time used and not for the whole year. Costs for self-propelled harvesting equipment appear under equipment costs.

These budgets do not include such items as taxes, insurance, drainage, bookkeeping, pickup truck expenses, land rent charges, management, or other overhead expenses. The 115-150 DBHP[2] 2-wheel drive tractor is the prime power source assumed for all budgets.

Cotton

Cotton production practices in the Mississippi Delta include seedbed preparation, planting, weed control, insect control, and harvesting. Seedbed preparation usually begins at the end of the previous year's harvesting season and continues up to the planting date. Deep tillage is done in the fall when possible. Most farmers intensify their seedbed preparation in February, March, and early April. This is generally limited only by the prevailing weather and soil type. Planting dates vary from the North to South Delta, but generally extend from April 15 through May 1.

Early weed control is generally accomplished by preplant or pre-emergence herbicide applications. Early cultivations are done without chemical weed control aids. As the season advances, cultivation, post-emergence application of appropriate chemicals, and limited hand weed control measures are employed. Lay-by cultivation and post emergence chemical application are usually done in early July. Insect control measures usually begin in late July, intensify during August, and continue into early September. Harvest begins in late September and generally is concluded by the end of November. Pre-harvest defoliation is practiced by most producers.

Some cotton producers have experienced severe insect control problems for the past several years. The cotton budgets reported in this publication are based upon seven to eight insecticide applications. Severe insect control problems may require additional applications. Five additional applications would reflect a weekly spraying schedule for the months of July, August and September. These five additional insecticide applications add $20.69 (Appendix Table 1) per acre to the cost of producing cotton reported in any cotton budget presented in this report.

Interpretation of the per acre cost of producing cotton estimates summarized in this report require the definition of two terms. "Usual input practices" describe the practices most commonly used by the farmers in this area. This set of practices would more nearly describe the modal rather than the mean situation. The term, "Limited seedbed Preparation", implies fewer trips than usual over the field for seedbed preparation. In addition, the "Limited seedbed preparation" budgets assume input levels that are generally lower than usual. Farmers following these soil practices often have yields that are equal to or higher than those reported for "Usual input practices".

Usual Input Practices

Solid, Sandy Soil---Solid planted cotton in the Mississippi Delta is planted on row centers 38 or 40 inches wide. Budgets for solid planted cotton are reported in Tables 5 and 6.

Solid, Clay Soil---Skip-row patterns have been utilized infrequently on these soil types in the Delta. Primary differences in production practices are equipment size and time of seedbed preparation.

Compared to solid-planted cotton on sandy soils, shallow tillage is required for clay soils. However, greater expenditures are necessary for chemical weed control due to the higher per-acre rates required for a given level of control. Generally, greater quantities of nitrogen fertilizer are applied to the clay soils.

Unless cotton follows an early maturing soybean variety grown in the previous crop season, days available for fieldwork on clay soil types are a serious restriction on fall seedbed preparation procedures. Since more operations are utilized for spring seedbed preparation than for fall preparation, greater tractor, equipment, and labor costs are incurred. Budgets for solid-planted cotton grown on clay soils are included in Tables 7 and 8.

Skip-Row---Previous research has indicated that cotton yields per foot of row increase with use of skip-row patterns as compared to cotton planted in rows uniformly spaced 38 to 40 inches apart [3]. However, the variation in per acre production cost among the various patterns is often ignored. This publication includes specified cost data for the "2 x 1" skip-row planting pattern, which is the most common skip-row pattern currently used in the area. Production costs associated with "2 x 1" skip-row are reported on a "land basis".

To obtain one acre of cotton when utilizing the "2 x 1" planting pattern, one and one-half acres of land are required. This has been traditionally referred to as a "planted acre" of cotton and is generally referred to as "planted

[2] *Drawbar horsepower - Nebraska rating.*

basis". With the removal of allotments for cotton, there is a need to look at cost and returns associated with "2 x 1" planting patterns from one acre of land. In such a case, one acre of land is used to produce 0.67 acre of planted cotton and is designated as "2 x 1" planting pattern, "land basis" in this publication. Tables 9 and 10 indicate per acre production costs when the "2 x 1" planting pattern, "land basis" is used.

Limited Seedbed Preparation

Solid---Budgets for solid planted cotton, limited seedbed preparation are reported in Tables 11 and 12.

All limited seedbed preparation budgets presented assume that the producer utilizes more efficient production practices through the complete production period.

Skip-Row---Estimated per acre costs of producing "2 x 1" cotton sandy soil, limited seedbed preparation, are summarized in Tables 13 and 14.

Stoneville widebed---The narrow-skip or Stoneville widebed planting pattern has emerg the second most popular ski planting pattern in the Missis Delta. Whereas the traditiona 1" skip-row planting patter an 80-inch skip alternating two conventional 40-inch row narrow-skip planting patter approximately a 60-inch skip nating with two convention inch rows. Table 15 reports pe production cost when the na skip planting pattern is utili conjunction with limited t technology.

Rice

The production of rice in the Mississippi Delta has been limited by government programs. However, since 1974, farmers without rice allotments have been permitted to produce rice. This has led to an increased interest in information on inputs and costs associated with rice production. Adjustment of previously reported performance rates and field operations were based on data provided by cooperating farmers during the 1975 growing season.

Rice production practices in Mississippi include seedbed preparation, planting, establishing levees, weed control, flooding, fertilizing, applying herbicides, tending water, draining, and harvesting. When possible, levees are disked down in the Fall followed by a once-over disking of the entire field. However, weather usually prohibits these activities until the following April. Recommended planting dates range from April 15 to June 20, depending upon variety.

Early control of weeds while in the two to three leaf stage is extremely important. This is accomplished by aerial application of an appropriate herbicide. Late-season weed control generally consists of one application of a p xy herbicide to control broa weeds. Where serious i problems develop, effective i ticides are available. Harves mally gets underway in September and reaches a between mid-September and October.

Table 16 reports per acre pr tion costs for rice. This budge applies to shallow silt loam with the exception that these may require one less operati land preparation and have li lower water costs.

Soybeans

Soybeans are normally planted from May 10 to June 15. Varieties have been developed to permit some variability in both planting dates and harvesting dates. This crop is adapted to a wide range of soil types and conditions, and meshes well into an overall farm organization in the Delta.

Planted on Sandy Soils

When compared to solid cotton planted on sandy soil, total specified costs including interest on operating capital are approximately $220 less per acre. This difference arises from the larger quantities of operating capital necessary to supply production inputs for cotton. A difference of this magnitude may be very significant in cases where capital is a restrictive resource. Soybean budgets for sandy soils are presented in Tables 17 and 18.

Planted on Clay Soils

Budgets for soybeans pro on the heavier-textured soi contained in Tables 19 and 2 major difference between budgets and the sandy soil bu is the use of an incorporate bicide in all clay soil budgets. compared to solid cotton plan clay soil, total specified co cluding interest on ope capital are approximately lower.

Wheat For Grain

Inputs and costs associated with producing one acre of wheat are presented in Table 21. This budget also applies to oat production except that seed price would have to be modified to reflect the difference in cost of oat seed and inc hauling costs per acre beca the higher yield.

Fallow

Some fields are fallowed in the ississippi Delta in most years. his is usually done to reduce vere perennial weed infestations, particularly Johnsongrass. Inputs for fallowing vary from year to year because of variable rainfall. Inputs required for 1 year of fallow are shown in Table 22. This practice should reduce grass and weed problems in subsequent years in the absence of excessive rainfall.

RETURNS

Price and yield fluctuations ake estimation of returns dif- cult. Estimates of returns based n expected product prices and ng term average yields are resented in Tables 23-39. Yields uring the period 1970-75 have nded to be depressed due to un- avorable environmental con- itions. These tables also sum- arize costs as direct expense or xed expense. The last line entitled NET RETURN" is calculated by ubtracting total specified ex- enses from total income. Conse- uently, it should strictly be eferred to as net returns above pecified costs. It reflects net returns to management, land, and general farm overhead. All labor is charged at a rate of $2.30 per hour. However, labor is divided into common, operator and special labor. Special labor refers to driver time for self propelled equipment, i.e. combines. Operator labor denotes tractor driver time, and common labor refers to all other labor. Numbers presented in Tables 23-39 are generally rounded to two decimals for publication purposes. Consequently, the number published and the number used in the calculations may differ slightly. For example, the haul charge for rice listed in Table 34 (page 47) is $.03 per bushel. The figure used for calculation purposes was $.0336 per bushel.

Estimates of returns above specified costs based on a range of product prices and on high, expected, and low yields are presented in Table 40. Given the assumed price and yield variation, estimated returns above specified cost range from $-13.42 per acre for solid cotton, clay soil, usual input practices, 6-row equipment to $306.18 per acre for solid cotton, sandy soil, limited seedbed preparation, 8-row equipment.

DAYS SUITABLE FOR FIELDWORK

Any analysis of the farm firm in he Delta area of Mississippi must ccount for the number of days that re suitable for fieldwork. Weather, articularly rainfall, limits the umber of days that farm machine- y can be used. Limitations on achinery use are more severe on clay than on sandy soils.

Days suitable for fieldwork are the key to the level of machinery investment found on farms in a given area. Farmers feel that they must have sufficient machinery to perform the required tasks in a timely manner in most years. Appendix Table 2 presents data on days suitable for tillage and non-tillage operations, by month, on sandy and clay soils. These data were obtained from an earlier study of days suitable for fieldwork in the area [1].

SUMMARY

Input and cost budgets are eported for major crops produced the Mississippi Delta. The udgets are for sandy and clay oils, and for 6-and 8-row equipment, when appropriate Budgets are included for cotton, rice, soybeans, wheat, and fallow. These budgets are based on 1975 practices and reflect expected 1976 prices for production inputs. Estimated returns are based on expected, low, and high prices for the respective crops considered.

Table 1. Estimated power and machinery performance rates, estimated life, purchase price, repair cost, and direct and fixed costs per hour and per acre. Mississippi Delta, 1976.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs % of new cost	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent	Dollars			
Tractor	90-100		12	700	14,500	65	2.33	--	2.66	--
Tractor	100-115		12	700	15,500	55	2.31	--	2.84	--
Tractor	115-150		12	700	18,250	52	2.85	--	3.35	--
Tractor	>150		12	700	22,500	49	3.47	--	4.12	--
Tractor (4-wheel drive)	<200		12	700	32,000	49	4.24	--	5.87	--
Tractor (4-wheel drive)	>200		12	700	38,500	49	5.26	--	7.06	--
Stalk shredder	2-row	.30	10	185	825	40	.18	.05	.65	.20
Stalk shredder	4-row	.24	10	185	2,530	40	.55	.13	1.98	.48
Subsoiler	2-row	.62	15	100	605	100	.40	.25	.67	.42
Subsoiler	3-row	.52	15	100	990	100	.66	.34	1.11	.58
Deep chisel	7-shank	.45	15	100	1,265	100	.84	.38	1.41	.63
Deep chisel	11-shank	.40	15	100	2,090	100	1.39	.56	2.33	.93
Chisel plow	16 ft.	.22	12	150	1,760	70	.68	.15	1.51	.33
Chisel plow	21 ft.	.14	12	150	2,750	70	1.07	.15	2.35	.33
Middle breaker	6-row	.14	12	160	2,200	80	.92	.13	1.76	.25
Middle breaker	8-row	.11	12	160	2,750	80	1.14	.12	2.20	.24
Moldboard plow (2-way)	4-bottom	.30	15	120	2,860	80	1.27	.38	2.66	.80
Disk harrow	21 ft.	.14	10	180	5,500	80	2.44	.34	4.44	.62
Disk harrow	28 ft.	.10	10	180	7,700	80	3.42	.34	6.20	.62
Section harrow	6-row	.10	10	200	825	75	.31	.03	.59	.06
Section harrow	8-row	.08	10	200	1,045	75	.39	.03	.76	.06
Soil pulverizer	6-row	.15	10	100	3,080	75	2.31	.35	4.47	.67
Soil pulverizer	8-row	.12	10	100	4,675	75	3.51	.42	6.78	.81
Field cultivator	21 ft.	.10	10	100	2,140	65	1.39	.14	3.11	.31
Field cultivator	42 ft.	.06	10	100	4,965	70	3.47	.21	7.20	.43
Spin spreader	--	.10	8	100	715	80	.72	.07	1.21	.12
Disk bedder	6-row	.13	8	160	1,980	80	1.24	.16	2.11	.27
Disk bedder	8-row	.10	8	160	2,530	80	1.58	.16	2.69	.27
Disk bedder & fertilizer	6-row	.16	8	160	2,365	80	1.48	.24	2.51	.40
Disk bedder & fertilizer	8-row	.12	8	160	3,025	80	1.89	.23	3.21	.39
Liquid fertilizer applicator	6-row	.12	8	150	3,000	80	2.00	.24	3.40	.41
Liquid fertilizer applicator	8-row	.08	8	150	3,400	80	2.27	.18	3.85	.31
Grain drill	12 ft.	.24	10	100	2,640	70	1.85	.44	3.83	.92
Grain drill	32 ft.	.09	10	100	8,360	75	6.27	.53	12.12	1.09
Planter + preemerge rig--cotton	6-row	.18	12	150	5,500	70	2.14	.38	4.71	.85
Planter + preemerge rig--cotton	8-row	.12	12	150	7,150	70	2.78	.33	6.11	.73
Planter	6-row	.14	12	150	4,950	70	1.92	.27	4.23	.59
Planter	8-row	.10	12	150	6,600	70	2.57	.26	5.65	.56
Cultivator-early	6-row	.21	12	200	2,750	80	.92	.19	1.77	.37
Cultivator-early	8-row	.16	12	200	4,400	80	1.47	.24	2.82	.45
Cultivator-late	6-row	.14	12	200	2,750	80	.92	.13	1.77	.25
Cultivator-late	8-row	.10	12	200	4,400	80	1.47	.15	2.82	.28
Cultivator + postemerge rig-early	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Cultivator + postemerge rig-early	8-row	.18	12	200	5,500	80	1.83	.33	3.53	.64
Cultivator + postemerge rig-late	6-row	.18	12	200	3,630	80	1.21	.22	2.33	.42
Cultivator + postemerge rig-late	8-row	.13	12	200	5,500	80	1.83	.24	3.53	.46
Sprayer-tractor mounted	21 ft.	.18	8	200	1,045	100	.65	.12	.89	.16
Sprayer-high clearance	14-row	.08	8	350	8,800	80	3.38	.27	4.27	.34
Cotton picker-first picking	2-row	.75	10	200	39,500	75	16.84	12.63	28.64	21.48
Cotton picker-second picking	2-row	.55	10	200	39,500	75	16.84	9.26	28.64	15.75
Combine - soybean/wheat	20 ft.	.23	8	300	33,000	80	12.30	2.83	18.70	4.30
Combine - rice	16 ft.	.75	8	300	43,000	80	16.51	12.38	24.37	18.27
Combine - corn	4-row	.45	8	300	34,000	80	12.64	5.69	19.27	8.67
Forage harvester - corn	2-row	.94	10	200	6,820	80	5.46	5.13	4.95	4.65
Forage harvester - grain sorghum	2-row	.66	10	200	6,820	80	5.46	3.60	4.95	3.27
Forage harvester - forage sorghum	2-row	1.41	10	200	6,820	80	5.46	7.70	4.95	6.98
Forage harvester - small grain	2-row	.66	10	200	6,710	80	5.37	3.55	4.86	3.21
Grain cart	--	.48	12	200	2,695	80	.90	.43	1.73	.83
Forage wagon	10-ton	--	15	200	3,685	60	.74	--	2.06	--
Forage blower	--	--	15	200	1,815	50	.60	--	2.03	--
Cotton trailer	10-bale	--	12	200	2,420	25	.25	--	1.55	--
Levee plow	--	.05	10	100	1,430	80	1.14	.06	2.07	.10
Blade-tractor mounted	--	.12	10	100	1,430	60	.86	--	2.07	--
Pipe	30 ft.	.10	12	100	770	45	.29	.03	.99	.10

Table 2. Estimated material prices, Delta area of Mississippi, 1976.

Item	Unit[1/]	Estimated price
		Dollars
Defoliant:		
Def	lb.	1.83
Folex	lb.	1.83
Sodium chlorate	lb.	.38
Herbicides:		
Amiben	lb.	5.55
Atrazine	lb.	4.19
Basagran	lb.	13.65
Caparol (WP)	lb.	4.50
Caparol + MSMA	pt.	1.47
Cotoran	lb.	6.68
2,4-D	lb.	1.89
Dowpon	lb.	1.66
DSMA	lb.	.92
Dyanap	pt.	.77
Glytac	lb.	1.38
Karmex (DL)	lb.	5.05
Karmex (WL)	lb.	3.88
Lasso	lb.	3.69
Lorox	lb.	7.10
MSMA	lb.	1.21
MSMA + Surfactant	pt.	.91
Ordram	lb.	7.00
Paraquat	lb.	19.39
Prefar	lb.	3.75
Probe	lb.	8.47
Propanil	lb.	3.43
Propazine	lb.	4.81
Sencor	lb.	15.90
Surfactant	pt.	.52
Dinitro	lb.	1.98
Tenoran	lb.	6.48
Treflan	lb.	6.93
2,4,5-T	lb.	4.36
Fungicides:		
Soil Treater XXX	lb.	1.15
Stauffer 30-30	lb.	1.15
Insecticides:		
Aldrin	lb.	2.09
Azodrin	lb.	4.21
Bidrin	lb.	4.06
Cygon 267	lb.	6.41
Disyston	lb.	3.20
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	1.06
Furadan	lb.	10.00
Guthion	lb.	5.00
Lannate	lb.	10.33
Methyl parathion	lb.	1.65
Sevin	lb.	2.01
Temik	lb.	15.80
Toxaphene	lb.	.73
Toxaphene + Methyl parathion	pt.	.98
Lo-Drift	pt.	1.89
Fundal	lb.	8.13

[1/]Expressed on a per pound active basis except for materials priced in volume and fungicides which are priced on a basis of formulated material.

Table 3. Estimated seed, fertilizer, and other prices, Delta area of Mississippi, 1976.

Item	Unit	Estimated price
		Dollars
Seed:		
Alfalfa	lb.	1.32
Corn	lb.	.85
Cotton, single treated	lb.	.20
Cotton, double treated	lb.	.24
Cotton, triple treated	lb.	.27
Grain sorghum	lb.	.17
Oat	lb.	.10
Soybean	lb.	.13
Wheat	lb.	.08
Rice	lb.	.17
Fertilizer:		
0-24-24	cwt.	7.50
8-24-24	cwt.	7.35
13-13-13	cwt.	7.25
Ammonium nitrate, 33%	cwt.	7.00
Anhydrous ammonia, 82%	cwt.	6.10
Urea, solid	cwt.	6.75
Other:		
Urea, feed grade	lb.	.11
Limestone, feed grade	lb.	.01

Table 4. Summary of aerial application costs, Delta area of Mississippi, 1976.

Application activity	Cost per acre	Cost per 100 pounds
	Dollars	Dollars
Fertilizer	---	1.50
Insecticide	.80	---
Lannate	1.40	---
Defoliate	1.50	---
Seed	---	1.50
Herbicide	1.50	---
2,4-D	3.00	---
2,4,5-T	3.00	---
Propanil	2.50	---

TILE 5 .ESTIMATED COST PER ACRE. SOLID COTTON. SANDY SOIL. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

ERATION DSCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APLY LIME X1/5	11	.00	.00	.00	.00	.00	.00	6.22	6.22
SALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
CISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DSK + INCOR 21 FT	3	.51	.60	.52	.96	.41	3.47	.00	6.47
DSK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
FELD CULT 21 FT	3	.28	.33	.14	.31	.23	.00	.00	1.30
DSK BED	4	.37	.44	.16	.27	.30	.00	.00	1.53
DSK BED + FERT	4	.46	.54	.24	.40	.37	7.44	.00	9.44
RW CONDITION	5	.51	.60	.42	.80	.41	.00	.00	2.75
PANT + PRE	5	.56	.66	.42	.93	.91	14.93	.00	18.42
TAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CLTIVATE EARLY	5	.60	.70	.19	.37	.48	.00	.00	2.34
APLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
CLT + POST EARLY	5	.68	.80	.29	.56	.55	1.13	.00	4.02
CLT + POST EARLY	6	.68	.80	.29	.56	.55	3.65	.00	6.54
HND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CLT + POST LATE	6	.51	.60	.22	.42	.41	3.65	.00	5.82
CLT + POST LATE	6	.51	.60	.22	.42	.41	1.75	.00	3.92
HND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4.60
CLT + POST LATE	7	.51	.60	.22	.42	.41	7.10	.00	9.27
ISECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	8.91
APLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
AP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
IT PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HUL	10	.00	.00	.00	.00	.00	.00	6.63	6.63
2) PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HUL	10	.00	.00	.00	.00	.00	.00	1.66	1.66
GN	10	.00	.00	.00	.00	.00	.00	58.40	58.40
TOAL SPECIFIED COSTS		8.61	10.09	23.44	40.83	22.69	73.57	82.46	261.69
INEREST ON OPERATING CAPITAL									5.41
TOAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									267.10

TABLE 6 .ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TO C
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2
DISK + INCOR 21 FT	3	.51	.60	.52	.96	.41	3.47	.00	6
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2
FIELD CULT 21 FT	3	.28	.33	.14	.31	.23	.00	.00	1
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1
DISK BED + FERT	4	.34	.40	.23	.39	.28	7.44	.00	9
ROW CONDITION	5	.34	.40	.62	.81	.28	.00	.00	2
PLANT + PRE	5	.38	.44	.36	.80	.61	14.93	.00	17
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	
CULT + POST EARLY	5	.51	.60	.33	.64	.41	1.13	.00	3
CULT + POST EARLY	5	.51	.60	.33	.64	.41	3.65	.00	5
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	5
CULT + POST LATE	6	.37	.44	.24	.46	.30	3.65	.00	5
CULT + POST LATE	6	.37	.44	.24	.46	.30	1.75	.00	5
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	0
CULT + POST LATE	7	.37	.44	.24	.46	.30	7.10	.00	0
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	0
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	1
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	1 2
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	8
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	7
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	3 6
HAUL	10	.00	.00	.00	.00	.00	.00	6.63	3
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	1 8
HAUL	10	.00	.00	.00	.00	.00	.00	1.66	6
GIN	10	.00	.00	.00	.00	.00	.00	58.40	5 0
TOTAL SPECIFIED COSTS		7.14	8.36	23.56	41.06	21.35	73.57	82.46	25 0
INTEREST ON OPERATING CAPITAL									1
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									26 1

TABLE 7 .ESTIMATED COST PER ACRE. SOLID COTTON. CLAY SOIL. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
SALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.4
DSK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.1[illegible]
DSK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.1[illegible]
DSK + INCOR 21 FT	3	.51	.60	.52	.96	.41	6.93	.00	9.94
FELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
DSK BED	4	.37	.44	.16	.27	.30	.00	.00	1.53
BED	4	.37	.44	.16	.27	.30	.00	.00	1.53
APLY FERT SPIN SPR	4	.28	.33	.07	.12	.23	15.68	.00	16.72
RW CONDITION	5	.43	.50	.35	.67	.35	.00	.00	2.29
PLANT + PRE	5	.56	.66	.42	.93	.91	17.35	.00	20.85
TAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.60	.70	.19	.37	.48	.00	.00	2.34
APLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
CULT + POST EARLY	5	.68	.80	.29	.56	.55	1.13	.00	4.02
CULT + POST EARLY	6	.68	.80	.29	.56	.55	1.13	.00	4.02
APLY FERT SPIN SPR	6	.28	.33	.07	.12	.23	15.68	.00	16.72
HND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	6	.51	.60	.22	.42	.41	.81	.00	2.99
CULT + POST LATE	6	.51	.60	.22	.42	.41	.81	.00	2.98
CULTIVATE LATE	7	.40	.47	.13	.25	.32	.00	.00	1.57
HND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4.60
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	8.91
APLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
AP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1T PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2D PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOAL SPECIFIED COSTS		8.04	9.42	23.38	40.60	22.23	89.99	59.79	253.45
INTEREST ON OPERATING CAPITAL									5.54
TOAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									258.99

TABLE 8 .ESTIMATED COST PER ACRE. SOLID COTTON. CLAY SOIL. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TO C
		DOLLARS							
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2
DISK + INCOR 21 FT	3	.51	.60	.52	.96	.41	6.93	.00	9
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1
REBED	4	.28	.33	.16	.27	.23	.00	.00	1
APPLY FERT SPIN SPR	4	.28	.33	.07	.12	.23	15.68	.00	16
ROW CONDITION	5	.34	.40	.42	.81	.28	.00	.00	2
PLANT + PRE	5	.38	.44	.36	.80	.61	17.35	.00	19
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1
CULT + POST EARLY	5	.51	.60	.33	.64	.41	1.13	.00	3
CULT + POST EARLY	6	.51	.60	.33	.64	.41	1.13	.00	3
APPLY FERT SPIN SPR	6	.28	.33	.07	.12	.23	15.68	.00	16
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4
CULT + POST LATE	6	.37	.44	.24	.46	.30	.81	.00	2
CULT + POST LATE	6	.37	.44	.24	.46	.30	.81	.00	2
CULTIVATE LATE	7	.28	.33	.15	.28	.23	.00	.00	1
HAND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	8
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44
TOTAL SPECIFIED COSTS		6.71	7.86	23.58	40.96	21.01	89.99	59.79	249
INTEREST ON OPERATING CAPITAL									5
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									255

'ALE 9 .ESTIMATED COST PER ACRE. 2 X 1 COTTON. LAND BASIS. SANDY SOIL. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT.
ISSISSIPPI DELTA. 1976.

OERATION DSCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.22
SALK SHREDDER 2 ROW	11	.47	.53	.03	.13	.46	.00	.00	1.63
CISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DSK + INCOR 21 FT	3	.51	.60	.52	.96	.41	3.47	.00	6.47
DSK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
FELD CULT 21 FT	3	.28	.33	.14	.31	.23	.00	.00	1.30
DSK BED	4	.37	.44	.16	.27	.30	.00	.00	1.53
DSK BED + FERT	4	.46	.54	.24	.40	.37	5.00	.00	7.00
RW CONDITION	5	.51	.60	.42	.80	.41	.00	.00	2.75
PANT + PRE	5	.56	.66	.42	.93	.91	10.02	.00	13.52
TAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CLTIVATE EARLY	5	.60	.70	.19	.37	.48	.00	.00	2.34
APLY INS GROUND	5	.00	.00	.25	.32	.17	.54	.00	1.28
CLT + POST EARLY	5	.68	.80	.29	.56	.55	.76	.00	3.65
CLT + POST EARLY	6	.68	.80	.29	.56	.55	2.44	.00	5.33
HND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.08
CLT + POST LATE	6	.51	.60	.22	.42	.41	2.44	.00	4.61
CLT + POST LATE	6	.51	.60	.22	.42	.41	1.17	.00	3.34
HND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.08
CLT + POST LATE	7	.51	.60	.22	.42	.41	7.10	.00	9.27
ISECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	8.91
APLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
AP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1P PICK 2 ROW	10	.00	.00	9.35	15.90	2.55	.00	.00	27.79
HUL	10	.00	.00	.00	.00	.00	.00	5.83	5.83
2D PICK 2 ROW	10	.00	.00	4.82	8.19	1.32	.00	.00	14.32
HUL	10	.00	.00	.00	.00	.00	.00	1.46	1.46
GN	10	.00	.00	.00	.00	.00	.00	51.44	51.44
TOAL SPECIFIED COSTS		8.38	9.83	18.45	32.32	18.06	62.60	74.51	224.15
INEREST ON OPERATING CAPITAL									4.69
TOAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									228.84

TABLE 10 .ESTIMATED COST PER ACRE, 2 X 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPME
MISSISSIPPI DELTA, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOT CO
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.
STALK SHREDDER 2 ROW	11	.47	.53	.03	.13	.46	.00	.00	1.6
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.3
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.3
DISK + DINCOR 21 FT	3	.51	.60	.52	.96	.41	3.47	.00	6.4
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.1
FIELD CULT 21 FT	3	.28	.33	.14	.31	.23	.00	.00	1.3
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1.2
DISK BED + FERT	4	.34	.40	.23	.39	.28	5.00	.00	6.6
ROW CONDITION	5	.30	.36	.37	.72	.25	.00	.00	2.0
PLANT + PRE	5	.34	.39	.32	.72	.54	10.02	.00	12.3
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.6
CULTIVATE EARLY	5	.41	.48	.21	.40	.33	.00	.00	1.8
APPLY INS GROUND	5	.00	.00	.25	.32	.17	.54	.00	1.3
CULT + POST EARLY	5	.46	.54	.29	.57	.37	.76	.00	2.9
CULT + POST EARLY	6	.46	.54	.29	.57	.37	2.44	.00	4.6
HAND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.0
CULT + POST LATE	6	.33	.39	.21	.41	.27	2.44	.00	4.0
CULT + POST LATE	6	.33	.39	.21	.41	.27	1.17	.00	2.
HAND WEED CONTROL	7	.00	.00	.00	.00	3.08	.00	.00	3.0
CULT + POST LATE	7	.33	.39	.21	.41	.27	7.10	.00	8.
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	7.27	1.60	8.
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.
1ST PICK 2 ROW	10	.00	.00	9.35	15.90	2.55	.00	.00	27.
HAUL	10	.00	.00	.00	.00	.00	.00	5.83	5.
2ND PICK 2 ROW	10	.00	.00	4.82	8.19	1.32	.00	.00	14.
HAUL	10	.00	.00	.00	.00	.00	.00	1.46	1.
GIN	10	.00	.00	.00	.00	.00	.00	51.44	51.
TOTAL SPECIFIED COSTS		6.54	7.67	18.31	32.03	16.40	62.60	74.51	218.
INTEREST ON OPERATING CAPITAL									4.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									222.

ABLE 11 .ESTIMATED COST PER ACRE. SOLID COTTON. SANDY SOIL. LIMITED SEEDBED PREPARATION. 6 ROW EQUIPMENT. ISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.22
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
SUBSOILER 2 ROW	11	1.77	2.08	.25	.42	1.43	.00	.00	5.94
DISK BED	3	.37	.44	.16	.27	.30	.00	.00	1.53
DISK BED + FERT	4	.46	.54	.24	.40	.37	6.71	.00	8.71
ROW CONDITION	5	.51	.60	.42	.80	.41	.00	.00	2.75
PLANT + PRE	5	.56	.66	.42	.93	.91	14.93	.00	18.42
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.60	.70	.19	.37	.48	.00	.00	2.34
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
CULT + POST EARLY	6	.68	.80	.29	.56	.55	3.65	.00	6.54
CULT + POST EARLY	6	.68	.80	.29	.56	.55	3.65	.00	6.54
HAND WEED CONTROL	6	.00	.00	.00	.00	3.45	.00	.00	3.45
CULT + POST LATE	6	.51	.60	.22	.42	.41	.81	.00	2.98
CULT + POST LATE	7	.51	.60	.22	.42	.41	.81	.00	2.98
HAND WEED CONTROL	7	.00	.00	.00	.00	3.45	.00	.00	3.45
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APP INS - AIR	7	.00	.00	.00	.00	.02	3.63	.80	4.46
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	12.63	21.68	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
GIN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TOTAL SPECIFIED COSTS		7.41	8.68	22.17	38.28	19.40	57.39	85.04	238.38
INTEREST ON OPERATING CAPITAL									4.62
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									243.00

TABLE 12 .ESTIMATED COST PER ACRE. SOLID COTTON. SANDY SOIL. LIMITED SEEDBED PREPARATION. 8 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/5	11	.00	.00	.00	.00	.00	.00	6.22	6.22
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
SUBSOILER 2 ROW	11	1.77	2.08	.25	.42	1.43	.00	.00	5.94
DISK BED	3	.28	.33	.16	.27	.23	.00	.00	1.28
DISK BED + FERT	4	.34	.40	.23	.39	.28	6.71	.00	8.35
ROW CONDITION	5	.34	.40	.42	.81	.28	.00	.00	2.25
PLANT + PRE	5	.38	.44	.36	.80	.61	14.93	.00	17.52
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2.05
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.65	.00	6.15
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.65	.00	6.15
HAND WEED CONTROL	6	.00	.00	.00	.00	3.45	.00	.00	3.45
CULT + POST LATE	6	.37	.44	.24	.46	.30	.81	.00	2.62
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
HAND WEED CONTROL	7	.00	.00	.00	.00	3.45	.00	.00	3.45
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APP INS - AIR	7	.00	.00	.00	.00	.02	3.63	.80	4.46
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
GIN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TOTAL SPECIFIED COSTS		6.08	7.12	22.27	38.47	18.18	57.39	85.04	234.55
INTEREST ON OPERATING CAPITAL									4.52
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									239.07

TABLE 13 .ESTIMATED COST PER ACRE. 2 X 1 COTTON. LAND BASIS. SANDY SOIL. LIMITED SEEDBED PREPARATION. 6 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.22
CHALK SHREDDER 2 ROW	11	.47	.53	.03	.13	.46	.00	.00	1.63
SUBSOILER 2 ROW	11	1.77	2.08	.25	.42	1.43	.00	.00	5.94
DISK BED	3	.37	.44	.16	.27	.30	.00	.00	1.53
DISK BED + FERT	4	.46	.54	.24	.40	.37	4.51	.00	6.51
ROW CONDITION	5	.51	.60	.42	.80	.41	.00	.00	2.75
PLANT + PRE	5	.56	.66	.42	.93	.91	10.02	.00	13.52
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.60	.70	.19	.37	.48	.00	.00	2.34
APPLY INS GROUND	5	.00	.00	.25	.32	.17	.54	.00	1.28
DUET + POST EARLY	6	.68	.80	.29	.56	.55	2.44	.00	5.33
CULT + POST EARLY	6	.68	.80	.29	.56	.55	2.44	.00	5.33
HAND WEED CONTROL	6	.00	.00	.00	.00	2.31	.00	.00	2.31
CULT + POST LATE	6	.51	.60	.22	.42	.41	.55	.00	2.72
CULT + POST LATE	7	.51	.60	.22	.42	.41	.55	.00	2.72
HAND WEED CONTROL	7	.00	.00	.00	.00	2.31	.00	.00	2.31
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APP INS - AIR	7	.00	.00	.00	.00	.02	3.63	.80	4.46
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	8.71	14.82	2.38	.00	.00	25.92
HAUL	10	.00	.00	.00	.00	.00	.00	6.13	6.13
2ND PICK 2 ROW	10	.00	.00	4.35	7.40	1.19	.00	.00	12.94
HAUL	10	.00	.00	.00	.00	.00	.00	1.53	1.53
GIN	10	.00	.00	.00	.00	.00	.00	54.00	54.00
TOTAL SPECIFIED COSTS		7.18	8.42	16.09	27.91	25.23	47.07	76.64	198.54
INTEREST ON OPERATING CAPITAL									3.92
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									202.47

TABLE 14 .ESTIMATED COST PER ACRE. 2 X 1 COTTON. LAND BASIS. SANDY SOIL. LIMITED SEEDBED PREPARATION. 8 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.22
STALK SHREDDER 2 ROW	11	.47	.53	.03	.13	.46	.00	.00	1.61
SUBSOILER 2 ROW	11	1.77	2.08	.25	.42	1.43	.00	.00	5.94
DISK BED	3	.28	.33	.16	.27	.23	.00	.00	1.28
DISK BED + FERT	4	.34	.40	.23	.39	.28	4.51	.00	6.15
ROW CONDITION	5	.30	.36	.37	.72	.25	.00	.00	2.00
PLANT + PRE	5	.34	.39	.32	.72	.54	10.02	.00	12.33
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.41	.48	.21	.40	.33	.00	.00	1.82
APPLY INS GROUND	5	.00	.00	.25	.32	.17	.54	.00	1.28
CULT + POST EARLY	6	.46	.54	.29	.57	.37	2.44	.00	4.67
CULT + POST EARLY	6	.46	.54	.29	.57	.37	2.44	.00	4.67
HAND WEED CONTROL	6	.00	.00	.00	.00	2.31	.00	.00	2.31
CULT + POST LATE	6	.33	.39	.21	.41	.27	.55	.00	2.15
CULT + POST LATE	7	.33	.39	.21	.41	.27	.55	.00	2.15
HAND WEED CONTROL	7	.00	.00	.00	.00	2.31	.00	.00	2.31
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APP INS - AIR	7	.00	.00	.00	.00	.02	3.63	.80	4.46
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.89
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	8.71	14.82	2.38	.00	.00	25.92
HAUL	10	.00	.00	.00	.00	.00	.00	6.13	6.13
2ND PICK 2 ROW	10	.00	.00	4.35	7.40	1.19	.00	.00	12.94
HAUL	10	.00	.00	.00	.00	.00	.00	1.53	1.53
GIN	10	.00	.00	.00	.00	.00	.00	54.00	54.00
TOTAL SPECIFIED COSTS		5.53	6.48	15.96	27.63	13.72	47.07	76.64	193.02
INTEREST ON OPERATING CAPITAL									3.82
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									196.84

TABLE 15 .ESTIMATED COST PER ACRE. STONEVILLE WIDEBED COTTON. SANDY SOIL. LIMITED SEEDBED PREPARATION. 8 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.22	6.22
STALK SHREDDER 2 ROW	11	.56	.64	.04	.16	.55	.00	.00	1.95
SUBSOILER 2 ROW	11	1.77	2.08	.25	.42	1.43	.00	.00	5.94
DISK BED	3	.30	.36	.17	.29	.25	.00	.00	1.37
DISK BED + FERT	4	.34	.40	.23	.39	.28	5.37	.00	7.01
ROW CONDITION	5	.37	.43	.45	.87	.30	.00	.00	2.41
PLANT + PRE	5	.40	.47	.39	.86	.65	11.94	.00	14.72
TRAILER	5	.05	.05	.04	.08	.41	.00	.00	.63
CULTIVATE EARLY	5	.49	.57	.26	.48	.39	.00	.00	2.19
APPLY INS GROUND	5	.00	.00	.26	.33	.18	.65	.00	1.42
CULT + POST EARLY	6	.55	.65	.35	.68	.44	2.92	.00	5.59
CULT + POST EARLY	6	.55	.65	.35	.68	.44	2.92	.00	5.59
HAND WEED CONTROL	6	.00	.00	.00	.00	3.68	.00	.00	3.68
CULT + POST LATE	6	.40	.47	.26	.49	.32	.65	.00	2.58
CULT + POST LATE	7	.40	.47	.26	.49	.32	.65	.00	2.58
HAND WEED CONTROL	7	.00	.00	.00	.00	3.68	.00	.00	3.68
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	1.50	1.50
APP INS - AIR	7	.00	.00	.00	.00	.02	3.63	.80	4.46
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	14.53	3.20	17.82
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.23	1.60	6.88
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.62	1.65	4.27
1ST PICK 2 ROW	10	.00	.00	10.61	18.04	2.90	.00	.00	31.55
HAUL	10	.00	.00	.00	.00	.00	.00	6.70	6.70
2ND PICK 2 ROW	10	.00	.00	5.00	8.50	1.37	.00	.00	14.87
HAUL	10	.00	.00	.00	.00	.00	.00	1.68	1.68
GIN	10	.00	.00	.00	.00	.00	.00	59.04	59.04
TOTAL SPECIFIED COSTS		6.17	7.23	18.92	32.78	17.74	51.11	82.39	216.34
INTEREST ON OPERATING CAPITAL									4.20
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									

TABLE 16 .ESTIMATED COST PER ACRE. RICE BEHIND RICE. CLAY SOIL. USUAL INPUT PRACTICES. 115-150 DBHP TRACTOR. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK LEVEE	4	.14	.17	.06	.10	.11	.00	.00	.58
CHISEL PLOW 16 FT	4	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	4	.40	.47	.34	.62	.32	.00	.00	2.15
DISK HARROW 21 FT	4	.40	.47	.34	.62	.32	.00	.00	2.15
DISK HARROW 21 FT	4	.40	.47	.34	.62	.32	.00	.00	2.15
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
PIPE 30 FT	4	.28	.33	.03	.10	.23	.00	.00	.98
PLANT - AIR	5	.00	.00	.00	.00	.16	23.08	2.02	25.27
SURVEY + MARK	5	.00	.00	.00	.00	.00	.00	3.00	3.00
PULL LEVEE X3	5	.43	.50	.18	.30	.34	.00	.00	1.75
PULL + SEED LEVEE	5	.17	.20	.07	.12	.14	1.37	.00	2.01
BUTT LEVEE	5	.34	.40	.09	.23	.28	.00	.00	1.34
APP PROPANIL - AIR	5	.00	.00	.00	.00	.05	13.72	2.50	16.27
SET SPILLS	5	.00	.00	.00	.00	.55	.00	.00	.55
APP PROPANIL - AIR	5	.00	.00	.00	.00	.05	13.72	2.50	16.27
FLOOD-ADJ SPILLS	5	.00	.00	.00	.00	1.15	.00	.00	1.15
APP UREA-AIR	6	.00	.00	.00	.00	.05	9.00	2.00	11.05
APP 2,4,5-T AIR	6	.00	.00	.00	.00	.05	4.36	3.00	7.41
APP UREA-AIR	6	.00	.00	.00	.00	.05	9.00	2.00	11.05
TEND WATER(RICE MAN)	7	.00	.00	.00	.00	2.62	.00	.00	2.62
WATER COST	10	.00	.00	24.94	15.80	.00	.00	.00	40.74
DRAIN(RICE MAN)	8	.00	.00	.00	.00	.58	.00	.00	.58
COMBINE 16 FT	9	.00	.00	12.38	18.27	1.73	.00	.00	32.38
TOW TRACTOR	9	1.06	1.47	.01	.02	.58	.00	.00	3.14
GRAIN CART	9	1.37	1.61	.43	.83	1.10	.00	.00	5.34
HAUL	9	.00	.00	.00	.00	.00	.00	3.36	3.36
STORE - DRY - LOAD	9	.00	.00	.00	.00	.00	.00	22.60	22.60
BURN	10	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		5.90	7.16	39.50	38.27	11.52	74.25	42.98	219.58
INTEREST ON OPERATING CAPITAL									7.88
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									227.46

TABLE 17 .ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	3.47	.00	6.47
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
DISK BED	4	.37	.44	.16	.27	.30	.00	.00	1.53
ROW CONDITION	5	.43	.50	.35	.67	.35	.00	.00	2.29
PLANT	5	.44	.52	.30	.65	.71	8.60	.00	11.41
TRAILER	5	.05	.05	.03	.07	.32	.00	.00	.52
CULTIVATE EARLY	6	.60	.70	.19	.37	.48	.00	.00	2.34
CULTIVATE LATE	6	.40	.47	.13	.25	.32	.00	.00	1.57
CULT + POST LATE	6	.51	.60	.22	.42	.41	1.19	.00	3.36
CULTIVATE LATE	7	.40	.47	.13	.25	.32	.00	.00	1.57
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.68	.68
TOTAL SPECIFIED COSTS		5.24	6.16	5.30	9.18	5.40	13.45	.68	45.41
INTEREST ON OPERATING CAPITAL									1.24
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									46.66

TABLE 18 .ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	3.47	.00	6.47
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1.28
ROW CONDITION	5	.34	.40	.42	.81	.28	.00	.00	2.25
PLANT	5	.31	.37	.29	.62	.51	8.80	.00	10.89
TRAILER	5	.05	.05	.03	.07	.32	.00	.00	.52
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.28
CULT + POST LATE	6	.37	.44	.24	.46	.30	1.19	.00	2.99
CULTIVATE LATE	7	.28	.33	.15	.28	.23	.00	.00	1.28
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.68	.68
TOTAL SPECIFIED COSTS		4.44	5.21	5.47	9.47	4.65	13.45	.68	43.35
INTEREST ON OPERATING CAPITAL									1.19
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									44.54

TABLE 19 .ESTIMATED COST PER ACRE. SOYBEANS. CLAY SOIL. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
ROW CONDITION	5	.43	.50	.35	.67	.35	.00	.00	2.29
PLANT	5	.44	.52	.30	.65	.71	8.80	.00	11.41
TRAILER	5	.05	.05	.03	.07	.32	.00	.00	.52
APP HERB - AIR	6	.00	.00	.00	.00	.00	3.08	1.50	4.58
CULTIVATE EARLY	6	.60	.70	.19	.37	.48	.00	.00	2.34
CULTIVATE LATE	6	.40	.47	.13	.25	.32	.00	.00	1.57
CULT + POST LATE	6	.51	.60	.22	.42	.41	1.19	.00	3.36
CULTIVATE LATE	7	.40	.47	.13	.25	.32	.00	.00	1.57
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.70	5.53	5.66	9.80	4.96	20.00	2.21	52.85
INTEREST ON OPERATING CAPITAL									1.56
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									54.41

TABLE 20 .ESTIMATED COST PER ACRE. SOYBEANS. CLAY SOIL. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. MISSISSIPPI DELTA. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
ROW CONDITION	5	.34	.40	.42	.81	.28	.00	.00	2.25
PLANT	5	.31	.37	.29	.62	.51	8.80	.00	10.89
TRAILER	5	.05	.05	.03	.07	.32	.00	.00	.52
APP HERB - AIR	6	.00	.00	.00	.00	.00	3.08	1.50	4.58
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.28
CULT + POST LATE	6	.37	.44	.24	.46	.30	1.19	.00	2.99
CULTIVATE LATE	7	.28	.33	.15	.28	.23	.00	.00	1.28
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		3.98	4.68	5.83	10.09	4.28	20.00	2.21	51.05
INTEREST ON OPERATING CAPITAL									1.51
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									52.56

TABLE 21 .ESTIMATED COST PER ACRE, WHEAT FOR GRAIN, ALL SOILS, 115-150 DBHP TRACTOR,
MISSISSIPPI DELTA, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DSK HARROW 21 FT	9	.40	.47	.34	.62	.32	.00	.00	2.15
CISEL PLOW 16 FT	9	.63	.74	.15	.33	.51	.00	.00	2.35
DSK HARROW 21 FT	9	.40	.47	.34	.62	.32	.00	.00	2.15
FELD CULT 21 FT	10	.28	.33	.14	.31	.23	.00	.00	1.30
RW CONDITION	10	.43	.50	.35	.67	.35	.00	.00	2.29
GAIN DRILL 12 FT	10	.75	.88	.48	1.01	1.71	7.82	.00	12.17
TAILER	10	.05	.05	.03	.07	.32	.00	.00	.52
AP 2,4-D - AIR	2	.00	.00	.00	.00	.05	1.89	3.00	4.94
AP FERT - AIR	3	.00	.00	.00	.00	.05	17.78	3.81	21.64
CMBINE 20 FT	6	.00	.00	2.83	4.30	.53	.00	.00	7.66
HUL	6	.00	.00	.00	.00	.00	.00	.81	.81
BRN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOAL SPECIFIED COSTS		2.94	3.45	4.66	7.93	3.91	27.49	7.62	58.00
INEREST ON OPERATING CAPITAL									1.83
TOAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									59.84

TABLE 22 .ESTIMATED COST PER ACRE, FALLOW, ALL SOILS, 115-150 DBHP TRACTOR,
MISISSIPPI DELTA, 1976.

OERATION DSCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DSK HARROW 21 FT	6	.40	.47	.34	.62	.32	.00	.00	2.15
DSK HARROW 21 FT	7	.40	.47	.34	.62	.32	.00	.00	2.15
DSK HARROW 21 FT	7	.40	.47	.34	.62	.32	.00	.00	2.15
DSK HARROW 21 FT	8	.40	.47	.34	.62	.32	.00	.00	2.15
DSK HARROW 21 FT	8	.40	.47	.34	.62	.32	.00	.00	2.15
CISEL PLOW 16 FT	9	.63	.74	.15	.33	.51	.00	.00	2.35
CISEL PLOW 16 FT	9	.63	.74	.15	.33	.51	.00	.00	2.35
DSK HARROW 21 FT	9	.40	.47	.34	.62	.32	.00	.00	2.15
TOAL SPECIFIED COSTS		3.65	4.29	2.34	4.38	2.94	.00	.00	17.60
INEREST ON OPERATING CAPITAL									1.21
TOAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									18.81

RACTERISTIC OVERFLOW OR DIVIDE FAULT AT ADDRESS 016555

TABLE 23.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	730.00	365.00
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				421.60
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.57	12.82
OPERATOR LABOR	HOUR	2.30	3.08	7.08
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	12.50	.50	6.22
TREFLAN	LB	6.93	.50	3.47
FERT ANHY AMMONIA	CWT	6.10	1.22	7.44
KARMEX (DL)	LB	5.05	.32	1.62
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	4.45	4.05
COTORAN	LB	6.68	.80	5.34
KARMEX (WP)	LB	3.88	.20	.78
LOROX	LB	7.10	1.00	7.10
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	4.06	1.00	4.06
TRACTOR	ACRE	8.61	1.00	8.61
INT ON OP CAP	ACRE	5.41	1.00	5.41
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				216.17
RETURNS ABOVE DIRECT EXPENSES				205.43
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	7.99	1.00	7.99
TRACTOR	ACRE	10.09	1.00	10.09
TOTAL FIXED EXPENSE				50.92
TOTAL SPECIFIED EXPENSES				267.10
NET RETURN				154.50

TABLE 24.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON. SANDY SOIL. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT.
MISSISSIPPI DELTA. 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	730.00	365.00
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				421.60
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.51	12.67
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	12.50	.50	6.22
TREFLAN	LB	6.93	.50	3.47
FERT ANHY AMMONIA	CWT	6.10	1.22	7.44
KARMEX (DL)	LB	5.05	.32	1.62
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	4.45	4.05
COTORAN	LB	6.68	.80	5.34
KARMEX (WP)	LB	3.88	.20	.78
LOROX	LB	7.10	1.00	7.10
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	4.18	1.00	4.18
TRACTOR	ACRE	7.14	1.00	7.14
INT ON OP CAP	ACRE	5.34	1.00	5.34
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				213.42
RETURNS ABOVE DIRECT EXPENSES				208.18
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	8.21	1.00	8.21
TRACTOR	ACRE	8.36	1.00	8.36
TOTAL FIXED EXPENSE				49.42
TOTAL SPECIFIED EXPENSES				262.84
NET RETURN				158.76

TABLE 25.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON. CLAY SOIL. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT.
MISSISSIPPI DELTA. 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.57	12.82
OPERATOR LABOR	HOUR	2.30	2.88	6.62
SPECIAL LABOR	HOUR	2.30	1.21	2.79
TREFLAN	LB	6.93	1.00	6.93
FERT AMM NITRATE	CWT	7.00	4.48	31.36
KARMEX (DL)	LB	5.05	.80	4.04
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	2.48	2.26
KARMEX (WP)	LB	3.88	.42	1.63
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	4.00	1.00	4.00
TRACTOR	ACRE	8.04	1.00	8.04
INT ON OP CAP	ACRE	5.54	1.00	5.54
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				208.97
RETURNS ABOVE DIRECT EXPENSES				108.68
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	7.75	1.00	7.75
TRACTOR	ACRE	9.42	1.00	9.42
TOTAL FIXED EXPENSE				50.02
TOTAL SPECIFIED EXPENSES				258.99
NET RETURN				58.66

TABLE 26.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.51	12.67
OPERATOR LABOR	HOUR	2.30	2.41	5.55
SPECIAL LABOR	HOUR	2.30	1.21	2.79
TREFLAN	LB	6.93	1.00	6.93
FERT AMM NITRATE	CWT	7.00	4.48	31.36
KARMEX (DL)	LB	5.05	.80	4.04
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	2.48	2.26
KARMEX (WP)	LB	3.88	.42	1.63
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	4.20	1.00	4.20
TRACTOR	ACRE	6.71	1.00	6.71
INT ON OP CAP	ACRE	5.44	1.00	5.44
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				206.52
RETURNS ABOVE DIRECT EXPENSES				111.13
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	8.11	1.00	8.11
TRACTOR	ACRE	7.86	1.00	7.86
TOTAL FIXED EXPENSE				48.82
TOTAL SPECIFIED EXPENSES				255.34
NET RETURN				62.31

TABLE 27.ESTIMATED COST AND NET RETURNS PER ACRE
2 X 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMEN
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	643.00	321.50
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				371.35
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.96	9.11
OPERATOR LABOR	HOUR	2.30	2.98	6.85
SPECIAL LABOR	HOUR	2.30	.92	2.11
APPLY LIME X1/6	TON	12.50	.50	6.22
TREFLAN	LB	6.93	.50	3.47
FERT ANHY AMMONIA	CWT	6.10	.82	5.00
KARMEX (DL)	LB	5.05	.21	1.08
TEMIK	LB	15.80	.20	3.18
SOIL TREATER XXX	LB	1.15	.67	.77
SEED TRIPLE TREATED	LB	.27	18.50	4.99
BIDRIN	LB	4.06	.13	.54
MSMA + SURFACTANT	PT	.91	2.98	2.71
COTORAN	LB	6.68	.54	3.58
KARMEX (WP)	LB	3.88	.13	.52
LOROX	LB	7.10	1.00	7.10
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	14.41	1.00	14.41
EQUIPMENT	ACRE	4.04	1.00	4.04
TRACTOR	ACRE	8.38	1.00	8.38
INT ON OP CAP	ACRE	4.69	1.00	4.69
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				186.69
RETURNS ABOVE DIRECT EXPENSES				184.66
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	24.40	1.00	24.40
EQUIPMENT	ACRE	7.92	1.00	7.92
TRACTOR	ACRE	9.83	1.00	9.83
TOTAL FIXED EXPENSE				42.15
TOTAL SPECIFIED EXPENSES				228.84
NET RETURN				142.51

ABLE 28.ESTIMATED COST AND NET RETURNS PER ACRE
X 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
ISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.50000	643.00	321.50
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				371.35
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.88	8.92
OPERATOR LABOR	HOUR	2.30	2.34	5.37
SPECIAL LABOR	HOUR	2.30	.92	2.11
APPLY LIME X1/6	TON	12.50	.50	6.22
TREFLAN	LB	6.93	.50	3.47
FERT ANHY AMMONIA	CWT	6.10	.82	5.00
KARMEX (DL)	LB	5.05	.21	1.08
TEMIK	LB	15.80	.20	3.18
SOIL TREATER XXX	LB	1.15	.67	.77
SEED TRIPLE TREATED	LB	.27	18.50	4.99
BIDRIN	LB	4.06	.13	.54
MSMA + SURFACTANT	PT	.91	2.98	2.71
COTORAN	LB	6.68	.54	3.58
KARMEX (WP)	LB	3.88	.13	.52
LOROX	LB	7.10	1.00	7.10
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	21.36	20.93
FUNDAL	LB	8.13	.75	6.10
APPLY INS AIR X2	ACRE	.80	4.00	3.20
APPLY INS AIR X4	ACRE	.80	4.00	3.20
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	14.41	1.00	14.41
EQUIPMENT	ACRE	3.90	1.00	3.90
TRACTOR	ACRE	6.54	1.00	6.54
INT ON OP CAP	ACRE	4.51	1.00	4.51
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				182.87
RETURNS ABOVE DIRECT EXPENSES				188.48
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	24.40	1.00	24.40
EQUIPMENT	ACRE	7.63	1.00	7.63
TRACTOR	ACRE	7.67	1.00	7.67
TOTAL FIXED EXPENSE				39.70
TOTAL SPECIFIED EXPENSES				222.57
NET RETURN				148.78

TABLE 29.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW EQUIPMENT
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	767.00	383.50
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				442.95
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.56	10.49
OPERATOR LABOR	HOUR	2.30	2.66	6.11
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	12.50	.50	6.22
FERT ANHY AMMONIA	CWT	6.10	1.10	6.71
KARMEX (DL)	LB	5.05	.32	1.62
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
COTORAN	LB	6.68	.80	5.34
MSMA + SURFACTANT	PT	.91	2.14	1.95
KARMEX (WP)	LB	3.88	.42	1.63
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	18.69	18.32
FUNDAL	LB	8.13	.63	5.08
APP INS - AIR	ACRE	.80	1.00	.80
APPLY INS AIR X4	ACRE	.80	4.00	3.20
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	2.79	1.00	2.79
TRACTOR	ACRE	7.41	1.00	7.41
INT ON OP CAP	ACRE	4.62	1.00	4.62
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				196.03
RETURNS ABOVE DIRECT EXPENSES				246.92
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	5.44	1.00	5.44
TRACTOR	ACRE	8.68	1.00	8.68
TOTAL FIXED EXPENSE				46.97
TOTAL SPECIFIED EXPENSES				243.00
NET RETURN				199.95

TABLE 30.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	767.00	383.50
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				442.95
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.50	10.34
OPERATOR LABOR	HOUR	2.30	2.19	5.04
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/5	TON	12.50	.50	6.22
FERT ANHY AMMONIA	CWT	6.10	1.10	6.71
KARMEX (DL)	LB	5.05	.32	1.62
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
COTORAN	LB	6.68	.80	5.34
MSMA + SURFACTANT	PT	.91	2.14	1.95
KARMEX (WP)	LB	3.88	.42	1.63
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	18.69	18.32
FUNDAL	LB	8.13	.63	5.08
APP INS - AIR	ACRE	.80	1.00	.80
APPLY INS AIR X4	ACRE	.80	4.00	3.20
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	19.38	1.00	19.38
EQUIPMENT	ACRE	2.89	1.00	2.89
TRACTOR	ACRE	6.08	1.00	6.08
INT ON OP CAP	ACRE	4.52	1.00	4.52
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				193.48
RETURNS ABOVE DIRECT EXPENSES				249.47
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	32.84	1.00	32.84
EQUIPMENT	ACRE	5.62	1.00	5.62
TRACTOR	ACRE	7.12	1.00	7.12
TOTAL FIXED EXPENSE				45.59
TOTAL SPECIFIED EXPENSES				239.07
NET RETURN				203.88

TABLE 31.ESTIMATED COST AND NET RETURNS PER ACRE
2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	675.00	337.50
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				389.80
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.21	7.39
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	.85	1.96
APPLY LIME X1/6	TON	12.50	.50	6.22
FERT ANHY AMMONIA	CWT	6.10	.74	4.51
KARMEX (DL)	LB	5.05	.21	1.08
TEMIK	LB	15.80	.20	3.18
SOIL TREATER XXX	LB	1.15	.67	.77
SEED TRIPLE TREATED	LB	.27	18.50	4.99
BIDRIN	LB	4.06	.13	.54
COTORAN	LB	6.68	.54	3.58
MSMA + SURFACTANT	PT	.91	1.43	1.30
KARMEX (WP)	LB	3.88	.28	1.09
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	18.69	18.32
FUNDAL	LB	8.13	.63	5.08
APP INS - AIR	ACRE	.80	1.00	.80
APPLY INS AIR X4	ACRE	.80	4.00	3.20
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	13.32	1.00	13.32
EQUIPMENT	ACRE	2.77	1.00	2.77
TRACTOR	ACRE	7.18	1.00	7.18
INT ON OP CAP	ACRE	3.92	1.00	3.92
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				166.13
RETURNS ABOVE DIRECT EXPENSES				223.67
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	22.54	1.00	22.54
EQUIPMENT	ACRE	5.37	1.00	5.37
TRACTOR	ACRE	8.42	1.00	8.42
TOTAL FIXED EXPENSE				36.33
TOTAL SPECIFIED EXPENSES				202.47
NET RETURN				187.33

TABLE 32.ESTIMATED COST AND NET RETURNS PER ACRE
2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	675.00	337.50
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				389.80
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.13	7.21
OPERATOR LABOR	HOUR	2.30	1.98	4.55
SPECIAL LABOR	HOUR	2.30	.85	1.96
APPLY LIME X1/6	TON	12.50	.50	6.22
FERT ANHY AMMONIA	CWT	6.10	.74	4.51
KARMEX (DL)	LB	5.05	.21	1.08
TEMIK	LB	15.80	.20	3.18
SOIL TREATER XXX	LB	1.15	.67	.77
SEED TRIPLE TREATED	LB	.27	18.50	4.99
BIDRIN	LB	4.06	.13	.54
COTORAN	LB	6.68	.54	3.58
MSMA + SURFACTANT	PT	.91	1.43	1.30
KARMEX (WP)	LB	3.88	.28	1.09
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	18.69	18.32
FUNDAL	LB	8.13	.63	5.08
APP INS - AIR	ACRE	.80	1.00	.80
APPLY INS AIR X4	ACRE	.80	4.00	3.20
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	13.32	1.00	13.32
EQUIPMENT	ACRE	2.64	1.00	2.64
TRACTOR	ACRE	5.53	1.00	5.53
INT ON OP CAP	ACRE	3.82	1.00	3.82
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				162.73
RETURNS ABOVE DIRECT EXPENSES				227.07
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	22.54	1.00	22.54
EQUIPMENT	ACRE	5.09	1.00	5.09
TRACTOR	ACRE	6.48	1.00	6.48
TOTAL FIXED EXPENSE				34.11
TOTAL SPECIFIED EXPENSES				196.84
NET RETURN				192.96

TABLE 33.ESTIMATED COST AND NET RETURNS PER ACRE
STONEVILLE WIDEBED COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 R
EQUIPMENT, MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	738.00	369.00
COTTON SEED	LB	.05000	1144.00	57.20
TOTAL INCOME				426.20
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.50	10.35
OPERATOR LABOR	HOUR	2.30	2.21	5.09
SPECIAL LABOR	HOUR	2.30	1.00	2.31
APPLY LIME X1/6	TON	12.50	.50	6.22
FERT ANHY AMMONIA	CWT	6.10	.88	5.37
KARMEX (DL)	LB	5.05	.26	1.29
TEMIK	LB	15.80	.24	3.79
SOIL TREATER XXX	LB	1.15	.80	.92
SEED TRIPLE TREATED	LB	.27	22.00	5.94
BIDRIN	LB	4.06	.16	.65
COTORAN	LB	6.68	.64	4.28
MSMA + SURFACTANT	PT	.91	1.71	1.56
KARMEX (WP)	LB	3.88	.34	1.30
INSECT SCOUTING	ACRE	1.50	1.00	1.50
TOX + METHYL PARA	PT	.98	18.69	18.32
FUNDAL	LB	8.13	.63	5.08
APP INS - AIR	ACRE	.80	1.00	.80
APPLY INS AIR X4	ACRE	.80	4.00	3.20
APPLY INS AIR X2	ACRE	.80	2.00	1.60
DEFOLIANT	LB	1.83	1.43	2.62
APP DEFOLIATE - AIR	ACRE	1.50	1.10	1.65
SPECIAL EQUIPMENT	ACRE	15.87	1.00	15.87
EQUIPMENT	ACRE	3.05	1.00	3.05
TRACTOR	ACRE	6.17	1.00	6.17
INT ON OP CAP	ACRE	4.20	1.00	4.20
HAUL	LB	.01	738.00	8.38
GIN	LB	.08	738.00	59.04
RETURNS ABOVE DIRECT EXPENSES				245.67
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	26.88	1.00	26.88
EQUIPMENT	ACRE	5.90	1.00	5.90
TRACTOR	ACRE	7.23	1.00	7.23
TOTAL FIXED EXPENSE				40.01
TOTAL SPECIFIED EXPENSES				220.54
NET RETURN				205.66

TABLE 34.ESTIMATED COST AND NET RETURNS PER ACRE
RICE BEHIND RICE, CLAY SOIL, USUAL INPUT PRACTICES, 115-150 DBHP TRACTOR,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
RICE	BU	3.75000	100.00	375.00
TOTAL INCOME				375.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.55	1.26
OPERATOR LABOR	HOUR	2.30	1.95	4.48
SPECIAL LABOR	HOUR	2.30	2.51	5.77
SEED	LB	.17	143.00	24.45
PLANT - AIR	CWT	1.50	1.35	2.02
SURVEY + MARK	ACRE	3.00	1.00	3.00
PROPANIL	LB	3.43	8.00	27.44
APP PROPANIL - AIR	ACRE	2.50	2.00	5.00
FERT UREA-SOLID	CWT	6.75	2.67	18.00
APP UREA-AIR	CWT	1.50	2.67	4.00
2,4,5-T	LB	4.36	1.00	4.36
APP 2,4,5-T AIR	ACRE	3.00	1.00	3.00
HAUL	BU	.03	100.00	3.36
STORE - DRY - LOAD	BU	.23	100.00	22.60
SPECIAL EQUIPMENT	ACRE	37.32	1.00	37.32
EQUIPMENT	ACRE	2.18	1.00	2.18
TRACTOR	ACRE	5.90	1.00	5.90
INT ON OP CAP	ACRE	7.83	1.00	7.83
TOTAL DIRECT EXPENSE				181.99
RETURNS ABOVE DIRECT EXPENSES				193.01
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	34.07	1.00	34.07
EQUIPMENT	ACRE	4.20	1.00	4.20
TRACTOR	ACRE	7.16	1.00	7.16
TOTAL FIXED EXPENSE				45.43
TOTAL SPECIFIED EXPENSES				227.43
NET RETURN				147.57

TABLE 35.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	22.00	110.00
TOTAL INCOME				110.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.27	.63
OPERATOR LABOR	HOUR	2.30	1.84	4.24
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.93	.50	3.47
SEED	LB	.13	66.00	8.80
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	2.47	1.00	2.47
TRACTOR	ACRE	5.24	1.00	5.24
INT ON OP CAP	ACRE	1.24	1.00	1.24
HAUL	BU	.03	22.00	.68
TOTAL DIRECT EXPENSE				31.31
RETURNS ABOVE DIRECT EXPENSES				78.69
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	4.88	1.00	4.88
TRACTOR	ACRE	6.16	1.00	6.16
TOTAL FIXED EXPENSE				15.34
TOTAL SPECIFIED EXPENSES				46.66
NET RETURN				63.34

TABLE 36.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	22.00	110.00
TOTAL INCOME				110.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.23	.53
OPERATOR LABOR	HOUR	2.30	1.56	3.59
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.93	.50	3.47
SEED	LB	.13	66.00	8.80
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	2.64	1.00	2.64
TRACTOR	ACRE	4.44	1.00	4.44
INT ON OP CAP	ACRE	1.19	1.00	1.19
HAUL	BU	.03	22.00	.68
TOTAL DIRECT EXPENSE				29.86
RETURNS ABOVE DIRECT EXPENSES				80.14
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	5.17	1.00	5.17
TRACTOR	ACRE	5.21	1.00	5.21
TOTAL FIXED EXPENSE				14.68
TOTAL SPECIFIED EXPENSES				44.54
NET RETURN				65.46

TABLE 37.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUN
		DOLLARS		DOLLAR
INCOME				
SOYBEANS	BU	5.00000	23.00	115.0
TOTAL INCOME				115.0
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.27	.6
OPERATOR LABOR	HOUR	2.30	1.65	3.8
SPECIAL LABOR	HOUR	2.30	.23	.5
TREFLAN	LB	6.93	1.00	6.9
SEED	LB	.13	66.00	8.8
DYANAP	PT	.77	4.00	3.0
APP HERB - AIR	ACRE	1.50	1.00	1.5
DINITRO	LB	1.98	.60	1.1
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.8
EQUIPMENT	ACRE	2.83	1.00	2.8
TRACTOR	ACRE	4.70	1.00	4.7
INT ON OP CAP	ACRE	1.56	1.00	1.5
HAUL	BU	.03	23.00	.7
TOTAL DIRECT EXPENSE				39.0
RETURNS ABOVE DIRECT EXPENSES				75.9
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.3
EQUIPMENT	ACRE	5.50	1.00	5.5
TRACTOR	ACRE	5.53	1.00	5.5
TOTAL FIXED EXPENSE				15.3
TOTAL SPECIFIED EXPENSES				54.4
NET RETURN				60.5

TABLE 38.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.23	.53
OPERATOR LABOR	HOUR	2.30	1.40	3.22
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.93	1.00	6.93
SEED	LB	.13	66.00	8.80
DYANAP	PT	.77	4.00	3.08
APP HERB - AIR	ACRE	1.50	1.00	1.50
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	3.00	1.00	3.00
TRACTOR	ACRE	3.98	1.00	3.98
INT ON OP CAP	ACRE	1.51	1.00	1.51
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				37.80
RETURNS ABOVE DIRECT EXPENSES				77.20
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	5.79	1.00	5.79
TRACTOR	ACRE	4.68	1.00	4.68
TOTAL FIXED EXPENSE				14.76
TOTAL SPECIFIED EXPENSES				52.56
NET RETURN				62.44

TABLE 39.ESTIMATED COST AND NET RETURNS PER ACRE
WHEAT FOR GRAIN, ALL SOILS, 115-150 DBHP TRACTOR,
MISSISSIPPI DELTA, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.43	1.00
OPERATOR LABOR	HOUR	2.30	1.03	2.38
SPECIAL LABOR	HOUR	2.30	.23	.53
SEED	LB	.08	99.00	7.82
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.00	1.00	3.00
FERT AMM NITRATE	CWT	7.00	2.54	17.78
APP FERT - AIR	CWT	1.50	2.54	3.81
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	1.83	1.00	1.83
TRACTOR	ACRE	2.94	1.00	2.94
INT ON OP CAP	ACRE	1.83	1.00	1.83
HAUL	BU	.03	30.00	.81
TOTAL DIRECT EXPENSE				48.45
RETURNS ABOVE DIRECT EXPENSES				49.05
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	3.63	1.00	3.63
TRACTOR	ACRE	3.45	1.00	3.45
TOTAL FIXED EXPENSE				11.38
TOTAL SPECIFIED EXPENSES				59.84
NET RETURN				37.66

Table 40. Estimated returns to land, managment, and farm overhead per acre for selected crops by planting pattern, equipment size and soil type for specified yields and prices, Mississippi Delta, 1976.

Crop	Soil type	Cultural practices	Equipment size	Yield	Price levels[1/] Low	Expected	High
Cotton-usual input practices	Sandy	Solid	6-row	680 lb. lint	65.23	130.17	195.11
				730 lb. lint	84.78	154.50	224.22
				780 lb. lint	104.29	178.78	253.27
Cotton-usual input practices	Sandy	Solid	8-row	680 lb. lint	69.49	134.43	199.37
				730 lb. lint	89.04	158.76	228.48
				780 lb. lint	108.55	183.04	257.53
Cotton-usual input practices	Clay	Solid	6-row	500 lb. lint	-13.42	34.33	82.08
				550 lb. lint	6.13	58.66	111.19
				600 lb. lint	25.64	82.94	140.24
Cotton-usual input practices	Clay	Solid	8-row	500 lb. lint	-9.77	37.98	85.73
				550 lb. lint	9.78	62.31	114.84
				600 lb. lint	29.29	86.59	143.89
Cotton-usual input practices	Sandy	2 x 1	6-row	593 lb. lint	61.55	118.18	174.81
				643 lb. lint	81.10	142.51	203.92
				693 lb. lint	100.61	166.79	232.97
Cotton-usual input practices	Sandy	2 x 1	8-row	593 lb. lint	67.81	124.44	181.07
				643 lb. lint	87.37	148.78	210.19
				693 lb. lint	106.88	173.06	239.24
Cotton-limited seedbed preparation	Sandy	Solid	6-row	717 lb. lint	107.15	175.62	244.09
				767 lb. lint	126.70	199.95	273.20
				817 lb. lint	146.21	224.23	302.25
Cotton-limited seedbed preparation	Sandy	Solid	8-row	717 lb. lint	111.08	179.55	248.02
				767 lb. lint	130.63	203.88	277.13
				817 lb. lint	150.14	228.16	306.18
Cotton-limited seedbed preparation	Sandy	2 x 1	6-row	625 lb. lint	103.36	163.05	222.74
				675 lb. lint	122.87	187.33	251.79
				725 lb. lint	142.43	211.67	280.91
Cotton-limited seedbed preparation	Sandy	2 x 1	8-row	625 lb. lint	108.99	168.68	228.37
				675 lb. lint	128.50	192.96	257.42
				725 lb. lint	148.06	217.30	286.54
Cotton-limited seedbed preparation	Sandy	SWB[2/]	8-row	688 lb. lint	115.62	181.32	247.02
				738 lb. lint	135.18	205.66	276.14
				788 lb. lint	154.69	229.94	305.19
Rice-usual input practice	Clay	--	115-150 DBHP	90 bu.	42.57	110.07	177.57
				100 bu.	72.57	147.57	222.57
				110 bu.	102.57	185.07	267.57
Soybeans-usual input practices	Sandy	Solid	6-row	15 bu.	13.56	28.56	43.56
				22 bu.	41.34	63.34	85.34
				30 bu.	73.10	103.10	133.10
Soybeans-usual input practices	Sandy	Solid	8-row	15 bu.	15.68	30.68	45.68
				22 bu.	43.46	65.46	87.46
				30 bu.	75.21	105.21	135.21
Soybeans-usual input practices	Clay	Solid	6-row	18 bu.	17.74	35.74	53.74
				23 bu.	37.59	60.59	83.59
				32 bu.	73.31	105.31	137.31
Soybeans-usual input practices	Clay	Solid	8-row	18 bu.	19.59	37.59	55.59
				23 bu.	39.44	62.44	85.44
				32 bu.	75.16	107.16	139.16
Wheat	All soils	--	115-150 DBHP	25 bu.	9.05	21.55	34.05
				30 bu.	22.66	37.66	52.66
				35 bu.	36.28	53.78	71.28

[1/] Cotton: $.42, $.50, and $.58/lb for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.42, $.50, and $.58 respectively. Rice: $3.00, $3.75, and $4.50/bu. for low, expected, and high price levels, respectively. Soybeans: $4.00, $5.00 and $6.00/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

[2/] Stoneville wide bed.

APPENDIX

Appendix Table 1. Estimated cost per acre, five additional insecticide applications, Mississippi Delta, 1976.

Operation or material description	Month	Unit	Quantity	Price	Cost
Tox + Methyl Para	7	pt.	2.67	.98	2.62
Fundal	7	lb.	.13	8.13	1.02
Common Labor	7	hour	.01	2.30	.02
Apply Ins Air	7	acre	1.00	.80	.80
					4.46
Tox + Methyl Para	8	pt.	8.01	.98	7.85
Common Labor	8	hour	.03	2.30	.07
Apply Ins Air X3	8	acre	3.00	.80	2.40
					10.32
Lannate	9	lb.	.45	10.33	4.65
Common Labor	9	hour	.01	2.30	.02
Apply Ins Air	9	acre	1.00	.80	.80
					5.47
Total specified cost					20.25
Interest on operating capital					.44
Total specified costs including interest on operating capital					20.69

Appendix Table 2. Estimated average number of days suitable for fieldwork on sandy and clay soil, by months, Delta Area of Mississippi.[1/]

	Estimated days suitable for fieldwork[2/]			
	Sandy soil		Clay soil	
Month	Tillage	Nontillage	Tillage	Nontillage
January	3.1	7.3	1.5	3.1
February	6.5	10.3	3.9	5.7
March	14.3	17.8	8.6	12.1
April	18.6	20.6	14.8	17.3
May	21.3	22.6	19.5	21.2
June	20.2	21.2	19.8	20.8
July	24.6	25.1	24.6	25.1
August	24.0	25.0	24.5	25.1
September	23.6	24.8	23.6	24.3
October	13.9	17.2	13.7	16.2
November	6.4	10.0	4.2	7.1
December	2.8	6.2	1.2	2.7

[1/] These estimates are upper limit values based on Stoneville, Mississippi weather data and computed using the techniques presented in [1].

[2/] These estimates assume everyday as a potential workday, with no adjustment for Sundays and holidays. To make these adjustments, multiply value by 0.86 for any month without a holiday and by 0.83 for any month with one holiday.

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Mississippi Cotton Variety Tests —1975

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Mississippi Cotton Variety Tests in 1975

Cotton variety tests were planted n 1975 at three Delta locations and it three other locations in Mississippi. The Delta tests were at Stoneville, Tunica and Sumner; however, the test at Sumner was not harvested because the plots were too wet. The test usually conducted on a heavy soil at Stoneville was not planted because of excessive soil moisture at planting ime.

Five entries, Coker 304, Coker 30, Deltapine 61, Stoneville 731N nd DES 2134-056, were tested for he first time. Varieties grown at Stoneville and Tunica are included n the Cooperative Regional Variety Testing Program.

Each entry was randomized and eplicated six times. Yield data were based on the weight of cotton harvested from two-row plots. Lint percentage, boll size, seed index and fiber property determinations were obtained from hand-picked samples. Fiber property data were determined by the U. S. Cotton Fiber Laboratory of the Agricultural Research Service, USDA, Knoxville, Tennessee and the Cotton Fiber Laboratory, Delta Branch Experiment Station, Stoneville, Mississippi.

The wet spring and wet fall resulted in late planting and poor harvesting conditions at most locations. Late planting and the cool, wet fall resulted in a late-maturing crop with lower than normal lint yields of most varieties---the late-maturing varieties appeared to suffer more than did the earlier-maturing ones at some locations. Insect damage, particularly by plant bugs and bollworms, resulted in a further delay in maturity and in lower yields at some locations.

The test at Stoneville was planted on May 13 (about two weeks later than usual) and yields were below normal, ranging from 228 to 970 pounds of lint per acre (Table 1). This was the only test that was harvested twice and for which a measure of maturity was obtained.

The Tunica test also was planted late (on May 14) and matured very slowly. Lint yields ranged from 304 to 626 pounds per acre (Table 2).

Late planting (on May 20) combined with a 30 degree temperature and frost on October 3 resulted in low yields at Holly Springs.[1] The test was harvested on November 17 and lint yields ranged from 277 to 382 pounds per acre (Table 3).

The Verona test was planted on May 6 and harvested on October 3 ---a measure of earliness was obtained by ratings made on September 25. Growing conditions were poor and yields were low, ranging from 234 to 311 pounds of lint per acre (Table 4).

Yields of the test at Mississippi State ranged from 711 to 865 pounds of lint per acre (Table 5). This test was planted on May 13 and harvested on December 15. A delay in the modification of a plot picker resulted in the late harvest.

Twelve of the test varieties were grown at each of the five locations in 1975. Average lint yields for the five locations ranged from 461 to 603 pounds (Table 6).

Seven of the varieties that were harvested from the five locations in the 1975 test had been grown at each of these locations in 1974. Average yields for the two years ranged from 668 to 779 pounds. While these data suggest that earliness of maturity significantly influenced yields, the results need to be interpreted in view of the fact that weather in the last two years has been more favorable for the earlier-maturing varieties (Table 7).

Five varieties have been grown in each of the last three years at each of the five locations from which tests were harvested in 1975. The three-year average yields of these varieties ranged from 760 to 819 pounds of lint per acre (Table 8).

[1] *This test received 15 applications of insecticide.*

Table 1. Results of 1975 Cotton Variety Tests at Stoneville, Miss.

Variety	Lint/ acre (pounds)		Lint percent			Boll size	Fiber properties				
							Length		Strength	Elonga-	Micro-
	Total	First pick	First pick	Lint percent	Seed index	(grams)	2.5%	50%	g/tex	tion	naire
DES 06-020-24	970	726	75	40.0	12.2	6.04	1.20	.59	20.15	8.13	4.5
Deltapine 55	940	656	70	41.6	10.6	5.68	1.19	.59	19.47	7.50	4.5
Stoneville 731N	928	683	74	40.4	11.6	5.48	1.17	.58	18.35	6.38	4.8
DES 2134-018	882	677	77	39.2	11.0	5.18	1.16	.57	19.15	7.73	4.4
Deltapine 16	838	577	69	39.0	11.9	6.12	1.19	.58	19.68	9.07	4.5
DES 2134-056	833	643	77	38.6	11.2	5.13	1.18	.59	19.87	7.52	4.5
Delcot 277	764	559	73	37.7	13.2	6.29	1.26	.63	21.32	9.63	3.8
Stoneville 213	721	474	66	38.6	11.8	5.61	1.15	.56	18.97	8.35	4.7
Stoneville 256	713	452	63	38.1	11.9	5.50	1.18	.57	19.16	6.26	4.6
Deltapine 25	702	447	64	39.3	11.5	5.52	1.17	.57	19.80	7.64	4.6
Brycot 4	652	423	65	37.3	11.8	5.32	1.18	.56	19.46	6.52	4.4
Deltapine 61	636	393	62	39.8	11.2	5.85	1.19	.61	19.38	9.19	4.8
Coker 304	634	466	73	41.8	11.1	5.49	1.23	.58	20.39	6.67	4.6
Coker 310	565	405	72	40.0	11.6	5.65	1.24	.61	20.78	7.45	4.4
Coker 530	564	403	71	39.0	12.0	5.56	1.24	.60	19.60	6.80	4.3
Paymaster 909	245	177	72	36.6	14.1	5.80	1.09	.56	20.35	7.52	4.5
Acala 1517-70	228	170	75	35.8	13.0	5.24	1.21	.58	23.64	6.20	3.9
C. V.	12.6										
LSD .05	100										

Planted: May 13, 1975
Harvested: October 20 and November 13, 1975
Soil: Bosket very fine sandy loam

Table 2. Results of 1975 Cotton Variety Tests at Tunica, Miss.

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
DES 06-020-24	626	39.7	11.8	6.13	1.18	.56	19.77	8.11	4.6
Soneville 731N	622	39.9	11.8	5.80	1.16	.56	16.64	5.97	5.0
DES 2134-018	605	38.2	11.3	5.39	1.16	.55	18.46	7.15	4.4
Deltapine 55	590	41.0	10.7	5.55	1.18	.55	18.30	6.93	4.3
DES 2134-056	577	38.0	11.4	5.27	1.16	.57	19.05	7.22	4.4
Deltapine 16	541	39.1	11.3	5.90	1.18	.57	18.56	8.63	4.5
Soneville 256	520	38.4	11.6	5.75	1.17	.55	17.87	6.26	4.7
Deltapine 25	518	40.0	11.4	5.70	1.15	.55	18.96	7.22	4.7
Delcot 277	489	38.5	13.1	6.32	1.20	.60	20.85	9.52	4.2
Soneville 213	484	38.4	11.7	5.59	1.16	.56	18.64	7.75	4.8
Coker 310	477	39.7	11.8	5.98	1.21	.57	20.08	6.93	4.4
Deltapine 61	476	39.0	11.5	5.78	1.19	.58	18.97	8.46	4.6
Coker 304	460	40.8	11.5	5.52	1.25	.58	18.97	6.75	4.6
Coker 530	423	39.4	11.9	5.79	1.20	.58	18.22	6.73	4.5
Sycot 4	377	37.9	11.5	5.44	1.15	.54	17.50	6.29	4.4
Paala 1517-70	348	35.9	13.6	6.12	1.19	.60	21.75	7.15	4.4
Paymaster 909	304	37.2	14.8	6.71	1.02	.53	19.87	7.76	4.8
C.V.	19.4								
LSD .05	110								

Planted: May 14, 1975
Harvested: November 24, 1975
Soil: Sandy loam

Table 3. Results of 1975 Cotton Variety Tests at the North Mississippi Branch Experiment Station, Holly Springs, Miss.[1]

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber properties: Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
DES 2134-056	382	39.7	11.0	4.92	1.09	.51	19.73	9.4	4.8
Soneville 213	380	41.2	10.8	5.30	1.07	.53	18.72	9.7	5.2
Soneville 731N	374	39.7	11.3	5.52	1.12	.53	19.65	8.4	4.9
DES 06-020-24	367	42.3	11.3	5.83	1.10	.53	21.96	11.0	5.0
Deltapine 16	363	40.3	11.1	5.89	1.13	.54	19.59	10.5	4.9
Delcot 277	357	41.3	11.9	6.05	1.12	.54	21.02	10.6	4.5
Soneville 256	349	41.3	10.9	5.36	1.07	.50	19.80	8.0	5.1
Deltapine 55	346	42.9	10.3	5.34	1.10	.49	19.87	9.4	5.0
Coker 304	336	43.5	10.0	5.26	1.16	.54	21.38	9.0	5.0
Coker 310	324	42.3	10.5	5.46	1.13	.54	21.24	8.6	4.8
Deltapine 25	299	40.5	11.4	5.58	1.12	.55	20.08	9.9	4.8
Coker 530	277	42.0	11.1	5.57	1.13	.52	20.66	8.4	5.0
C.V.	18.9								
LSD .05	76								

Planted: May 20, 1975
Harvested: November 17, 1975
Soil: Grenada silt loam

[1]**This test received 15 applications of insecticides.**

Table 4. Results of 1975 Cotton Variety Tests at the Northeast Branch Experiment Station, Veron Miss.

Variety	Lint/ acre (pounds)	Percent open*	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elonga- tion	Micr nair
Deltapine 16	311	17	40.6	9.9	5.17	1.15	.54	18.79	10.2	5.0
Deltapine 55	302	14	42.5	9.4	5.15	1.11	.53	18.86	8.1	5.0
Delcot 277	283	18	38.4	11.6	5.48	1.18	.58	21.17	10.0	4.3
DES 06-020-24	281	25	39.9	10.5	5.60	1.11	.53	20.81	9.3	4.9
DES 2134-056	263	23	39.3	9.6	4.86	1.12	.54	20.95	8.5	4.7
Coker 304	257	14	41.2	9.6	5.57	1.19	.57	21.24	7.7	4.9
Coker 310	254	15	40.5	9.6	5.01	1.16	.54	20.16	7.5	4.9
Coker 530	253	15	39.4	10.1	5.77	1.17	.54	21.02	7.5	5.0
Deltapine 25	250	17	41.4	9.8	5.99	1.13	.56	21.24	8.8	5.2
Stoneville 213	249	14	40.8	9.8	5.21	1.10	.54	19.51	8.6	5.5
Stoneville 256	249	12	41.2	10.0	4.01	1.10	.53	20.24	7.2	5.4
Stoneville 731N	234	14	41.2	10.0	4.99	1.13	.54	20.16	7.1	5.4
C.V.	14.2									
LSD .05	44									

Planted: May 6, 1975
Harvested: October 23, 1975
Soil: Catalpa silty clay

***Percent open September 25, 1975**

Table 5. Results of 1975 Cotton Variety Tests at Mississippi State, Miss.

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elonga- tion	Micr nai
Delcot 277	865	40.3	11.1	5.90	1.16	.56	20.30	9.7	4.2
Deltapine 55	795	42.2	10.3	5.48	1.15	.55	19.94	9.4	4.7
Coker 530	786	40.7	11.5	5.42	1.17	.56	18.86	8.3	4.6
DES 2134-056	785	40.7	10.0	5.04	1.16	.53	19.80	9.0	4.3
Stoneville 213	775	39.5	10.9	5.94	1.15	.54	19.65	10.0	4.4
DES 06-020-24	772	41.3	10.9	5.53	1.17	.57	20.59	10.2	4.8
Coker 304	752	40.7	9.6	5.38	1.16	.53	19.73	8.1	4.6
Deltapine 25	736	41.2	10.4	5.64	1.15	.55	20.09	9.6	4.7
Stoneville 731N	731	40.1	10.9	5.50	1.16	.55	19.22	9.7	4.6
Deltapine 16	729	40.3	10.4	5.63	1.17	.54	19.01	10.6	4.3
Stoneville 256	718	41.2	10.7	5.60	1.15	.56	19.00	8.7	4.7
Coker 310	711	42.1	10.2	5.38	1.20	.58	20.37	8.9	4.8
C.V.	5.6								
LSD .05	50								

Planted: May 13, 1975
Harvested: December 15, 1975
Soil: Leeper fine sandy loam

Table 6. Average Performance at five locations (Stoneville, Tunica, Holly Springs, Verona, Mississippi State) 12 cotton varieties, Mississippi, 1975.

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
MES 06-020-24	603	40.6	11.3	5.83	1.15	.56	20.66	9.3	4.8
Deltapine 55	595	42.0	10.3	5.44	1.14	.54	19.29	8.3	4.7
Stoneville 731N	578	40.3	11.1	5.46	1.15	.55	18.80	7.5	4.9
MES 2134-056	568	39.3	10.6	5.04	1.14	.55	19.88	8.3	4.5
Deltapine 16	556	39.9	10.9	5.74	1.16	.55	19.13	9.8	4.6
Delcot 277	552	39.2	12.2	6.01	1.18	.58	20.93	9.9	4.2
Stoneville 213	522	39.7	11.0	5.53	1.13	.55	19.10	8.9	4.9
Stoneville 256	510	40.0	11.0	5.24	1.13	.54	19.21	7.3	4.9
Deltapine 25	501	40.5	10.9	5.69	1.14	.56	20.03	8.6	4.8
Coker 304	488	41.6	10.4	5.44	1.20	.56	20.34	7.6	4.7
Coker 310	466	40.9	10.7	5.50	1.19	.57	20.53	7.9	4.6
Coker 530	461	40.1	11.3	5.62	1.18	.56	19.67	7.5	4.7

Table 7. Performance at five locations, seven cotton varieties, Mississippi, 1974-1975 average.[1]

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
MES 06-020-24	779	40.2	11.3	5.92	1.16	.57	20.50	8.6	4.7
Deltapine 55	719	41.5	10.1	5.45	1.15	.54	18.82	7.8	4.6
Stoneville 213	715	39.6	10.9	5.63	1.14	.55	18.70	7.9	4.9
Stoneville 256	703	39.9	10.8	5.42	1.15	.55	18.63	6.8	4.8
Deltapine 16	696	39.4	11.0	5.85	1.17	.56	19.14	9.4	4.7
Deltapine 25	670	40.2	10.8	5.55	1.15	.56	19.68	8.0	4.8
Coker 310	668	40.4	10.9	5.58	1.20	.57	19.98	7.4	4.6

[1]Ten environments---Stoneville 3, Tunica 2, Sumner 1, Yazoo City 1, Holly Springs 1, Mississippi State 1 and Verona 1.

Table 8. Performance at five locations, five cotton varieties, Mississippi, 1973-1975 average.[1]

Variety	Lint/ acre (pounds)	Lint percent	Seed index	Boll size (grams)	Fiber Properties: Length 2.5%	Length 50%	Strength g/tex	Elongation	Micronaire
Stoneville 213	819	39.2	11.1	5.61	1.14	.55	18.74	7.6	4.9
Deltapine 55	809	41.2	10.2	5.44	1.15	.55	19.00	7.6	4.6
Deltapine 16	785	39.0	11.2	5.86	1.17	.56	19.36	9.2	4.7
Deltapine 25	769	40.3	10.8	5.58	1.15	.56	19.65	7.7	4.9
Coker 310	760	40.2	11.1	5.53	1.21	.57	20.02	7.1	4.7

[1]Fifteen environments---Stoneville 5, Tunica 3, Sumner 2, Yazoo City 2, Holly Springs 1, Mississippi State 1 and Verona 1.

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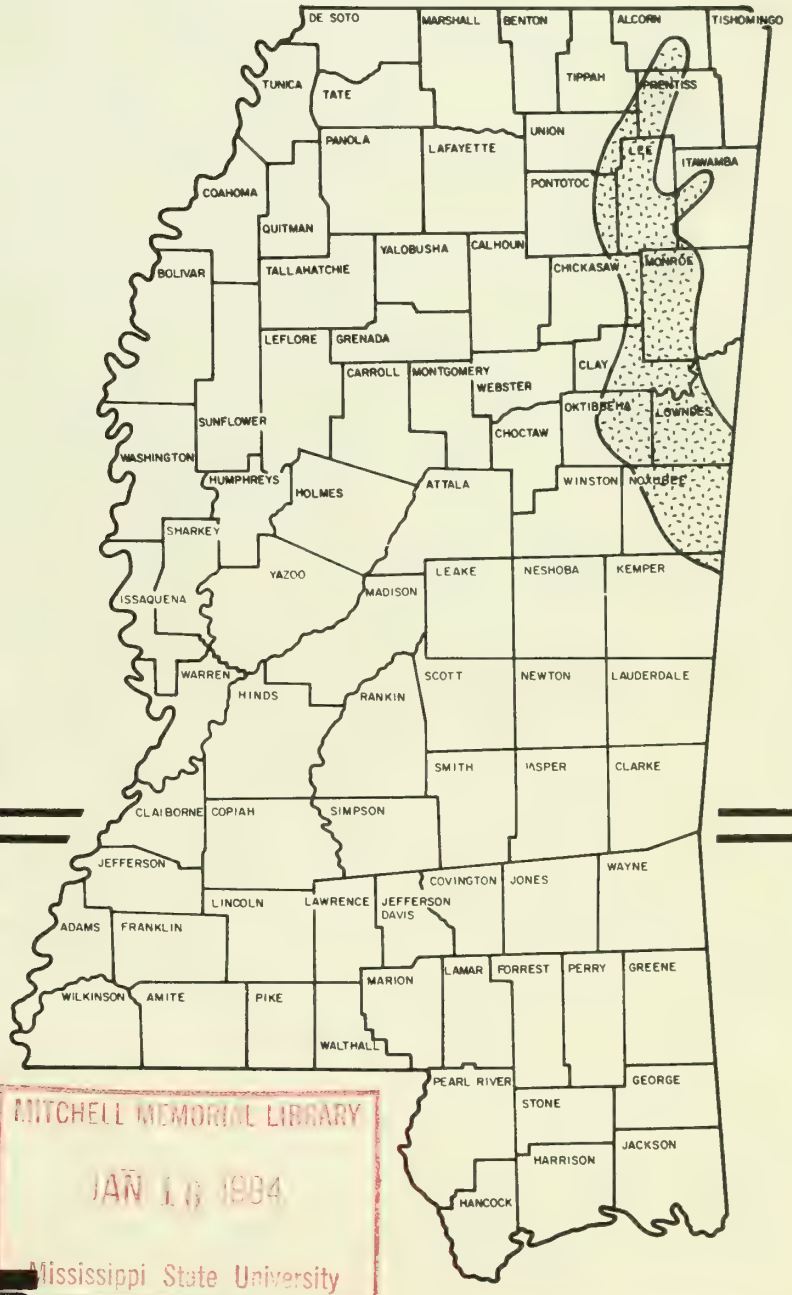
Crop Budgets For The Black Belt Of Northeast Mississippi

By: D.W. Parvin, Jr., James G. Hamill, and S.M. Toney



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CROP BUDGETS FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI

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CROP BUDGETS FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI, 1976

Specified Costs and Net Returns

The ranges of total specified costs (including interest on operating capital) are:

For soybeans---$72.20 for "usual input practices", 6-row equipment and 38-inch row spacing to $93.38 for "high input practices", 6-row equipment and 30-inch row spacing (Table 1), and

For cotton---$256.59 for "usual input practices" with 8-row equipment to $292.40 for "high input practices" with 4-row equipment.

Total specified cost of producing an acre of wheat is $69.51.

Net returns (returns to land, management and farm overhead) per acre of soybeans yielding 23 bushels and selling for $5.00 range from $21.62 for "high input practices", 6-row equipment and 30-inch row spacing to $42.80 for "usual input practices", 6-row equipment and 38-inch row spacing (Table 2).

Returns to land, management and farm overhead per acre of cotton yielding 550 pounds of lint selling for 50 cents/pound and 853 pounds of seed selling at five cents/pound range from $25.25 for "high input practices" with 4-row equipment to $61.06 for "usual input practices" with 8-row equipment.

A 30-bushel per acre wheat crop selling at $3.25 per bushel yields a net return of $27.99.

Other combinations of yields and prices result in significantly different net returns; for example, an 18 bushel bean crop produced with 4-row equipment on 38-inch row spacing with "usual input practices" will

Table 1. Summary of estimated cost per acre for soybeans, cotton and wheat, Black Belt of Northeast Mississippi, 1976.

Crop description	Row space	Equipment size	Tractor Direct cost	Tractor Fixed cost	Equipment Direct cost	Equipment Fixed cost	Labor cost	Material cost	Misc. cost	Total specified cost	Interest on operating capital	Total cost
	inches		dollars									
Soybeans- usual input practices	38	4-row	5.78	6.60	5.05	8.62	6.79	34.55	6.96	74.35	3.01	77.35
	38	6-row	4.03	4.95	5.13	8.80	4.94	34.55	6.96	69.37	2.83	72.20
	38	8-row	4.39	5.16	5.21	8.92	4.37	34.55	6.96	69.56	2.84	72.40
	30	6-row	4.53	5.56	5.42	9.38	5.56	35.14	6.96	72.56	2.91	75.47
	30	8-row	4.88	5.74	5.52	9.57	4.87	35.14	6.96	72.70	2.91	75.60
Soybeans- high input practices	38	4-row	7.34	8.38	6.07	10.18	8.70	41.27	6.96	88.91	4.18	93.09
	38	6-row	5.38	6.61	6.42	10.86	6.71	41.27	6.96	84.21	3.99	88.20
	38	8-row	5.88	6.91	6.47	10.91	5.94	41.27	6.96	84.34	4.01	88.35
	30	6-row	6.02	7.40	6.78	11.61	7.49	43.00	6.96	89.25	4.13	93.38
	30	8-row	6.49	7.62	6.85	11.71	6.54	43.00	6.96	89.16	4.13	93.30
Cotton- usual input practices	38	4-row	8.58	9.79	24.78	41.76	16.01	103.56	53.44	257.92	5.75	263.68
	38	6-row	6.21	7.63	24.93	42.12	13.63	103.56	53.44	251.52	5.54	257.06
	38	8-row	6.53	7.68	25.02	42.26	12.56	103.56	53.44	251.06	5.53	256.59
Cotton- high input practices	38	4-row	10.93	12.48	26.67	44.53	19.07	118.34	53.44	285.47	6.94	292.40
	38	6-row	7.99	9.82	27.02	45.24	16.13	118.34	53.44	277.99	6.63	284.62
	38	8-row	8.47	9.96	27.15	45.46	14.86	118.34	53.44	277.69	6.64	284.32
Wheat	--	115-150 DBHP	1.88	2.21	4.04	6.63	2.39	44.44	5.42	67.00	2.50	69.51

Table 2. Estimated per acre returns to land, management, and farm overhead, for soybeans, cotton and wheat, by equipment size and row space, for specified yields and prices, Black Belt of Northeast Mississippi.

Crop description	Row space	Equipment size	Yield	Price levels 1/ Low	Expected	High
	inches			dollars		
Soybeans-usual input practices	38	4-row	18 bu.	-5.20	12.80	30.80
			23 bu.	14.65	37.65	60.65
			32 bu.	50.37	82.37	114.37
Soybeans-usual input practices	38	6-row	18 bu.	-.05	17.95	35.95
			23 bu.	19.80	42.80	65.80
			32 bu.	55.52	87.52	119.52
Soybeans-usual input practices	38	8-row	18 bu.	-.25	17.75	35.75
			23 bu.	19.60	42.60	65.60
			32 bu.	55.32	87.32	119.32
Soybeans-usual input practices	30	6-row	18 bu.	-3.31	14.69	32.69
			23 bu.	16.53	39.53	62.53
			32 bu.	52.26	84.26	116.26
Soybeans-usual input practices	30	8-row	18 bu.	-3.45	14.55	32.55
			23 bu.	16.40	39.40	62.40
			32 bu.	52.12	84.12	116.12
Soybeans-high input practices	38	4-row	18 bu.	-20.94	-2.94	15.06
			23 bu.	-1.09	21.91	44.91
			32 bu.	34.63	66.63	98.63
Soybeans-high input practices	38	6-row	18 bu.	-16.05	1.95	19.95
			23 bu.	3.80	26.80	49.80
			32 bu.	39.52	71.52	103.52
Soybeans-high input practices	38	8-row	18 bu.	-16.20	1.80	19.80
			23 bu.	3.65	26.65	49.65
			32 bu.	39.37	71.37	103.37
Soybeans-high input practices	30	6-row	18 bu.	-21.23	-3.23	14.77
			23 bu.	-1.38	21.62	44.62
			32 bu.	34.34	66.34	98.34
Soybeans-high input practices	30	8-row	18 bu.	-21.14	-3.14	14.86
			23 bu.	-1.30	21.70	44.70
			32 bu.	34.42	66.42	98.42

(continued)

Table 2. (continued)

Crop description	Row space	Equipment size	Yield	Price levels 1/ Low	Expected	High
	inches			dollars		
Cotton- usual input practices	38	4-row	500 lb. lint	-28.11	29.64	87.39
			550 lb. lint	-9.56	53.97	117.50
			600 lb. lint	8.96	78.26	147.56
Cotton- usual input practices	38	6-row	500 lb. lint	-21.50	36.25	94.00
			550 lb. lint	-2.94	60.59	124.12
			600 lb. lint	15.57	84.87	154.17
Cotton- usual input practices	38	8-row	500 lb. lint	-21.02	36.73	94.48
			550 lb. lint	-2.47	61.06	124.59
			600 lb. lint	16.04	85.34	154.64
Cotton- high input practices	38	4-row	500 lb. lint	-56.83	.92	58.67
			550 lb. lint	-38.28	25.25	88.78
			600 lb. lint	-19.77	49.53	118.83
Cotton- high input practices	38	6-row	500 lb. lint	-49.05	8.70	66.45
			550 lb. lint	-30.50	33.03	96.56
			600 lb. lint	-11.99	57.31	126.61
Cotton- high input practices	38	8-row	500 lb. lint	-48.76	8.99	66.74
			550 lb. lint	-30.20	33.33	96.86
			600 lb. lint	-11.69	57.61	126.91
Wheat	--	115-150 DBHP	25 bu.	-.60	11.90	24.40
			30 bu.	12.99	27.99	42.99
			35 bu.	26.59	44.09	61.59

1/ Cotton: $.40, $.50, and $.60/lb. for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.40, $.50, and $.60 respectively. Soybeans: $4.00, $5.00, and $6.00/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

result in a loss of $5.20 per acre if beans sell for $4.00, a net return of $30.80 if beans sell for $6.00 (Table 2).

Description of the Study Area

The 1.4 million acres of Black Belt soil in Northeast Mississippi [13]* are in 13 counties[1/] [6]. However, the acreage of typical prairie soil varies from county to county and none of the counties are entirely within the Black Belt.

The geological material of the Black Belt soils is the Selma chalk formation---a soft limestone from 200 to 800 feet deep. This material under grass vegetation gave rise to prairie-like soils. The chief calcareous soils are Houston and Sumter clay on uplands, Trinty clay in bottoms, and Bell clay on the terraces. Catalpa---an alluvial deposit made up from the combined washings of the Black Belt uplands and the adjoining sandy uplands is an excellent bottom soil [5].

The Black Belt was one of the most productive areas of Mississippi when the state was first settled. An intensive agriculture, based on cotton as the major cash crop, developed early. The terrain and cultural practices stimulated sheet erosion, that continued unnoticed (because of no gullies) for many years. Today, instead of finding dark relatively deep fertile soils, limestone is found exposed in many upland fields. However, the fertility level of Black Belt soils generally still is high relative to that of other Coastal Plain soils [13].

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*Numbers in brackets refer to Literature Cited at the end of this report.

1/ Alcorn, Chickasaw, Clay, Itawamba, Kemper, Lee, Lowndes, Monroe, Noxubee, Oktibbeha, Pontotoc, Prentiss, Union.

Crop History

Production of selected crops in the area has changed markedly in the past twenty years (Table 3).

Cotton planting has declined steadily from 261,000 acres in 1954, except for modest increases in 1961 and 1962 and again in 1969 through 1972. Cotton production in 1974 amounted to only 112,500 acres.

Soybeans were harvested from only 13,000 acres in 1954. Planted acreage of this crop in 1974 was 531,000.

Corn production in the Black Belt has declined steadily since 1954. Most corn currently produced in the area is for silage.

Wheat acreage increased from 5,000 in 1957 to a peak of 22,600 in 1968. Only 20,000 acres were planted to wheat in 1974.

Objective

The objective of this publication is to provide information on production practices and costs for selected crops grown in the Black Belt of Mississippi. Current production practices and costs of the more important agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and other workers in agriculture.

This publication complements Bulletin 843 entitled, "Cost of Production Estimates For Major Crops, Mississippi Delta, 1976" [11] and is one of a series of recent publications [2,3,7,8,9,10] dealing with the costs of crop production in Mississippi.

Data and Procedure

The production practices presented in this report were developed from a survey of 63 selected farmers in the Black Belt of Northeast Mississippi during the summer of 1975. Cost estimates were derived by

Table 3. Harvested Acres: Cotton, soybeans, corn and wheat, Black Belt of Northeast Mississippi, 1954-1974.

Year	Cotton	Soybeans	Corn	Wheat
	Acres harvested			
1954	260,950	13,100	334,100	NR*
1955	218,360	21,000	311,800	NR
1956	208,070	27,500	315,300	NR
1957	169,320	41,100	286,700	5,085
1958	126,780	55,000	264,419	3,250
1959	184,850	61,300	235,300	1,130
1960	184,060	58,050	221,500	1,395
1961	201,970	59,334	197,600	1,035
1962	201,890	65,833	158,400	990
1963	183,260	76,500	153,900	1,240
1964	186,050	86,400	137,800	2,280
1965	183,100	103,234	113,800	5,390
1966	131,400	167,200	100,300	7,750
1967	91,400	239,000	93,200	21,860
1968	107,000	295,500	77,400	22,600
1969	129,900	328,500	61,100	7,350
1970	126,400	350,500	47,400	6,950
1971	127,950	382,000	51,200	7,000
1972	135,700	435,000	35,000	9,850
1973	105,300	514,000	32,200	18,550
1974	112,500	531,200	29,900	20,550

Source: [4].

*Not reported

Table 4. Estimates of performance rates, length of life, annual use, purchase price and repair costs and of direct and fixed costs per hour and per acre, tractors and equipment of specified size, conventional row spacing, Black Belt of Northeast Mississippi, 1976.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed Costs per hour	Fixed Costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	Dollars		Dollars	
Tractor	90-100		12	700	14,500	65	2.33	---	2.66	---
Tractor	100-115		12	700	15,500	55	2.31	---	2.84	---
Tractor	115-150		12	700	18,250	52	2.85	---	3.35	---
Tractor	>150		12	700	22,500	49	3.47	---	4.12	---
Tractor (4-wheel drive)	<200		12	700	32,000	49	4.24	---	5.87	---
Tractor (4-wheel drive)	>200		12	700	38,500	49	5.26	---	7.06	---
Stalk shredder	2-row	.30	10	185	825	40	.18	.05	.65	.20
Stalk shredder	4-row	.24	10	185	2,530	40	.55	.13	1.98	.48
Subsoiler	2-row	.62	15	100	605	100	.40	.25	.67	.42
Subsoiler	3-row	.52	15	100	990	100	.66	.34	1.11	.58
Deep chisel	7-shank	.45	15	100	1,265	100	.84	.38	1.41	.63
Deep chisel	11-shank	.40	15	100	2,090	100	1.39	.56	2.33	.93
Chisel plow	12 ft.	.30	12	150	1,075	70	.42	.13	.92	.28
Chisel plow	16 ft.	.22	12	150	1,760	70	.68	.15	1.51	.33
Chisel plow	21 ft.	.14	12	150	2,750	70	1.07	.15	2.35	.33
Middle breaker	6-row	.14	12	160	2,200	80	.92	.13	1.76	.25
Middle breaker	8-row	.11	12	160	2,750	80	1.14	.12	2.20	.24
Moldboard plow (2-way)	4-bottom	.30	15	120	2,860	80	1.27	.38	2.66	.80
Disk harrow	14 ft.	.23	10	180	3,410	80	1.52	.35	2.75	.63
Disk harrow	21 ft.	.14	10	180	5,500	80	2.44	.34	4.44	.62
Disk harrow	28 ft.	.10	10	180	7,700	80	3.42	.34	6.20	.62
Section harrow	6-row	.10	10	200	825	75	.31	.03	.59	.06
Section harrow	8-row	.08	10	200	1,045	75	.39	.03	.76	.06
Soil pulverizer	6-row	.15	10	100	3,080	75	2.31	.35	4.47	.67
Soil pulverizer	8-row	.12	10	100	4,675	75	3.51	.42	6.78	.81
Field cultivator	12 ft.	.20	10	100	1,100	65	.71	.14	1.59	.32
Field cultivator	21 ft.	.10	10	100	2,140	65	1.39	.14	3.11	.31
Field cultivator	42 ft.	.06	10	100	4,965	70	3.47	.21	7.20	.43
Spin spreader	---	.10	8	100	715	80	.72	.07	1.21	.12
Disk bedder	4-row	.21	8	160	1,230	80	.77	.16	1.31	.27
Disk bedder	6-row	.13	8	160	1,980	80	1.24	.16	2.11	.27
Disk bedder	8-row	.10	8	160	2,530	80	1.58	.16	2.69	.27

Table 4. (continued)

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	Dollars			
Disk bedder & fertilizer	8-row	.12	8	160	3,025	80	1.89	.23	3.21	.39
Grain drill	12 ft.	.24	10	100	2,640	70	1.85	.44	3.83	.92
Planter & preemerge rig	4-row	.22	12	150	3,600	70	1.40	.31	3.08	.68
Planter & preemerge rig	6-row	.18	12	150	5,500	70	2.14	.38	4.71	.85
Planter & preemerge rig	8-row	.12	12	150	7,150	70	2.78	.33	6.11	.73
Planter	4-row	.20	12	150	3,400	70	1.32	.26	2.91	.58
Planter	6-row	.14	12	150	4,950	70	1.92	.27	4.23	.59
Planter	8-row	.10	12	150	6,600	70	2.57	.26	5.65	.56
Cultivator-early	4-row	.25	12	200	1,700	80	.57	.14	1.09	.27
Cultivator-early	6-row	.21	12	200	2,750	80	.92	.19	1.09	.27
Cultivator-early	8-row	.16	12	200	4,400	80	1.47	.24	2.82	.45
Cultivator-late	4-row	.20	12	200	1,700	80	.57	.11	1.09	.22
Cultivator-late	6-row	.14	12	200	2,750	80	.92	.13	1.77	.25
Cultivator-late	8-row	.10	12	200	4,400	80	1.47	.15	2.82	.28
Cultivator & postemerge rig-early	4-row	.35	12	200	2,285	80	.76	.27	1.47	.51
Cultivator & postemerge rig-early	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Cultivator & postemerge rig-early	8-row	.18	12	200	5,500	80	1.83	.33	3.53	.64
Cultivator & postemerge rig-late	4-row	.28	12	200	2,285	80	.76	.21	1.47	.41
Cultivator & postemerge rig-late	6-row	.18	12	200	3,630	80	1.21	.22	2.33	.42
Cultivator & postemerge rig-late	8-row	.13	12	200	5,500	80	1.83	.24	3.53	.46
Sprayer-high clearance	14-row	.08	8	350	8,800	80	3.38	.27	4.27	.34
Cotton picker-first picking	2-row	.75	10	200	39,500	75	16.84	12.63	28.64	21.48
Cotton picker-second picking	2-row	.55	10	200	29,500	75	16.84	9.26	28.64	15.75
Combine - soybean/wheat	20 ft.	.23	8	300	33,000	80	12.30	2.83	18.70	4.30
Cotton trailer	10-bale	---	12	200	2,420	25	.25	---	1.55	---

Table 5. Estimates of Performance Rates, Length of Life, Annual Use, Purchase Price and Repair Costs and of Direct and Fixed Costs Per Hour and Per Acre, Equipment of Specified Size, 30-inch Row Spacing, Black Belt of Northeast Mississippi, 1976.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	Dollars			
Planter	6-row	.19	12	150	4,950	70	1.92	.37	4.23	.80
Planter & preemerge rig	6-row	.24	12	150	5,500	70	2.14	.51	4.71	1.13
Cultivator-early	6-row	.28	12	200	2,750	80	.92	.26	1.76	.49
Cultivator-late	6-row	.19	12	200	2,750	80	.92	.17	1.76	.34
Cultivator & postemerge rig-early	6-row	.31	12	200	3,630	80	1.21	.38	2.33	.72
Cultivator & postemerge rig-late	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Planter	8-row	.14	12	150	6,600	70	2.57	.36	5.65	.79
Planter & preemerge rig	8-row	.16	12	150	7,150	70	2.78	.44	6.12	.98
Cultivator-early	8-row	.21	12	200	4,400	80	1.47	.31	2.82	.59
Cultivator-late	8-row	.14	12	200	4,400	80	1.47	.21	2.82	.40
Cultivator & postemerge rig-early	8-row	.24	12	200	5,500	80	1.83	.44	3.53	.85
Cultivator & postemerge rig-late	8-row	.17	12	200	5,500	80	1.83	.31	3.53	.60

Table 6. Estimated Prices of Defoliants, Herbicides, Fungicides and Insecticides, Black Belt of Northeast Mississippi, 1976.

te	Unit[1/]	Price
		Dollars
)efliant:		
Df	lb.	1.83
Flex	lb.	1.83
Sdium chlorate	lb.	.38
ierbicides:		
Aiben	lb.	5.55
Atrazine	lb.	4.19
Bsagran	lb.	13.65
Cparol (WP)	lb.	4.50
Cparol + MSMA	pt.	1.47
Ctoran	lb.	6.68
2,4-D	lb.	1.89
Dwpon	lb.	1.66
DMA	lb.	.92
Danap	pt.	.77
Dytac	lb.	1.38
Ermex (DL)	lb.	5.05
Ermex (WP)	lb.	3.88
Esso	lb.	3.69
Prox	lb.	7.10
SMA	lb.	1.21
SMA + Surfactant	pt.	.91
Sdram	lb.	7.00
Paraquat	lb.	19.39
Prefar	lb.	3.75
Probe	lb.	8.47
Propanil	lb.	3.43
Propazine	lb.	4.81
Spencor	lb.	15.90
Surfactant	pt.	.52
Sinitro	lb.	1.98
Benoran	lb.	6.48
Treflan	lb.	6.93
2,4,5-T	lb.	4.36
Fungicides:		
Soil Treater XXX	lb.	1.15
Stauffer 30-30	lb.	1.15
Insecticides:		
Aldrin	lb.	2.09
Azodrin	lb.	4.21
Bidrin	lb.	4.06
Bygon 267	lb.	6.41
Disyston	lb.	3.20
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	1.06
Furadan	lb.	10.00
Guthion	lb.	5.00
Lannate	lb.	10.33
Methyl parathion	lb.	1.65
Sevin	lb.	2.01
Temik	lb.	15.80
Toxaphene	lb.	.73
Toxaphene + Methyl parathion	pt.	.98
Lo-Drift	pt.	1.89
Fundal	lb.	8.13

[1/] Expressed on a per pound active basis except for materials priced in volume and fungicides which are priced on a basis of formulated material.

Table 7. Estimated seed, fertilizer, and other prices, Northeast Black Belt of Mississippi, 1976.

Item	Unit	Price
		Dollars
Seed:		
Alfalfa	lb.	1.32
Corn	lb.	.85
Cotton, single treated	lb.	.20
Cotton, double treated	lb.	.24
Cotton, triple treated	lb.	.27
Grain sorghum	lb.	.17
Oat	lb.	.10
Soybean	lb.	.13
Wheat	lb.	.08
Rice	lb.	.17
Fertilizer:		
0-24-24	cwt.	7.30
8-24-24	cwt.	7.75
13-13-13	cwt.	6.50
Ammonium nitrate, 33%	cwt.	6.70
Anhydrous ammonia, 82%	cwt.	6.10
Urea, solid	cwt.	6.75
Lime (custom)	ton	12.50

Table 8. Summary of aerial application costs, Northeast Black Belt of Mississippi, 1976.

Application activity	Cost per acre	Cost per 100 lbs.
	Dollars	Dollars
Fertilizer	---	1.50
Insecticide	.80	---
Lannate	1.40	---
Defoliate	1.50	---
Seed	---	1.50
Herbicide	1.50	---
2,4-D	3.00	---
2,4,5-T	3.00	---
Propanil	2.50	---

enterprise budgeting---the costing of an enterprise on an operation by operation basis.

Enterprise budgets are presented for two levels of inputs for each of the most important crops grown in the area. We used farm survey data to identify two groups of farmers. Practices reported by the larger group were assumed to be those most common in the area and we designated these as "usual input practices". A relatively small number of farmers reported the use of more weed and insect control than is common in the area and we designated these as "high input practices". Farmers who use these levels of inputs are striving for higher yields, or they are having more severe weed and insect problems than are generally encountered. It cannot be assumed that this level of inputs is more desirable, or reflects a more advanced technology.

Budgets also were constructed, where appropriate, by equipment size; i.e., 4-row, 6-row, and 8-row. In addition, soybean budgets were estimated for 38-inch and 30-inch rows.

Prices used in the budgets were derived from several sources. Estimates of 1976 machinery prices were provided late in 1975 by farm equipment dealers in the area. Tractor and machinery prices and related data used in this report are included in Tables 4 and 5. Prices for agricultural chemicals, planting seed, fertilizers and other budget input materials were obtained from area dealers in late 1975 (Tables 6 and 7). Charges for aerial application of fertilizer, insecticides, herbicides, defoliants, and seed were obtained from aerial applicators in the area during December, 1975 (Table 8). Consequently, these budgets reflect 1975 production practices and estimated 1976 costs.

Commodity prices reflect estimated 1976 market prices at harvest for each crop as of December, 1975. A lower and higher price was selected to provide income data over a wider range of potential prices. Additionally, income estimates are provided for variations in yield.

Power and Machinery Costs

Estimates of equipment performance rates, length of life, annual use, and direct and fixed cost are presented in Tables 4 and 5. Cost estimates were based on prices expected in 1976. For example, a major determinant of direct or variable tractor cost is the price of diesel fuel---a price of $0.375 per gallon was used. Tractor sizes denoted in Table 2 are drawbar horsepower ratings (DBHP).[2/]

Length of life of equipment was obtained from earlier reports [1, 2] with adjustments for equipment that has come into use since those reports were issued. Length of life for each item is based on use until it has zero salvage value. Performance rates and average hours of annual use were obtained from [2] and [11].

Repair costs were based on estimated total repairs over the life of the equipment, and are expressed as a percentage of new cost. These estimates were based on unpublished data from the National Cotton Costs Surveys of the Economic Research Service, USDA. Repair costs include parts, labor, tires, and battery replacement. Repairs are one component of direct machinery costs. The other components of direct machinery costs include fuel, oil, other lubricants, and hydraulic fluid. Costs of these items are based on estimated average fuel consumption and the price of fuel.

[2/] These ratings are based upon Nebraska Tractor tests [12].

Direct and fixed cost per hour and per acre are presented for each item except tractors. Tractor costs are presented only as per hour costs. Tractor cost per acre may be calculated by multiplying tractor cost per hour by the performance rate of the tractor-drawn implement used.

Fixed costs include depreciation and interest on machinery investment. Depreciation was based on estimated total hours of use over the life of the machine. Charges for interest on machinery investment were made on the basis of average annual investment and annual hours of use, using a 9 percent per annum interest rate. Total machinery costs per acre include depreciation, interest on investment, repairs, fuel, oil and other lubricants. The details of the procedure for computing direct and fixed machinery costs are available in [1, 2, 3, 11].

Enterprise Budgets

Each enterprise budget is summarized in two budget tables.[3/] For example, Tables 9 and 10 are a set. The first table of each set reports estimated cost per acre on an operation by operation basis. The figures in the body of these tables are all dollars. The month in which an operation is usually performed is indicated. These tables allow the user to take a quick look at the cost of producing a crop on an operation by operation basis. If an operation is followed by a times sign and a whole number, (such as X2), it is duplicated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "APPLY LIME X

[3/] For convenience, all remaining tables are placed after the text.

1/4", means that lime would be applied every four years, and the listed costs are one-fourth of total costs for that operation.

Labor was charged at a rate of $2.30 per hour. Miscellaneous costs include charges for custom services, hauling costs, and ginning costs (where appropriate). A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interests charges on operating capital are for the period of time used and not for the whole year. Costs of self-propelled harvesting and spraying equipment appear under equipment costs.

The second table of each set reports estimated income and includes the quantity and price of each input used. By referring to the second table of each set the reader can determine the type of fertilizer, the price, and the quantity applied, etc.

Machinery charges are divided into three categories; special equipment, equipment and tractor. Special equipment refers to self-propelled equipment, i.e., combines, cotton pickers and high clearance sprayers. Equipment refers to towed equipment. Labor is also divided into three categories. Operator labor denotes tractor driver labor. Special labor refers to driver time for self-propelled equipment and common labor is all other labor.

None of the tables summarized in the report include charges for such items as taxes, drainage, bookkeeping, pickup truck, land or management.

The 90-100 DBHP tractor is the prime power source for all 4-row budgets. The prime power source for all 6-row budgets is the 100-115 DBHP tractor. The 115-150 DBHP tractor was used for 8-row budgets.

Soybeans

All operations and materials used for producing soybeans under "usual input practices" (Tables 9-18) are identical. Differences in these budgets result from tractor and equipment size, row spacing, and quantity of banded materials.

Usual input practices---Tractor, equipment and labor charges for a given operation differ from budget to budget because of differences in tractor and equipment size. Changes in equipment size modify labor (tractor driver time) requirements per acre and this results in variations in the labor charge per acre.

Liming is charged at an annual rate of $6.25---a charge that reflects a custom rate of $12.50 per ton with two tons applied per acre each 4 years. Operations involving only a tractor and towed equipment are self-explanatory. For such operations tractor and equipment direct and fixed costs are presented along with a labor charge. This labor charge is for the tractor driver.

The first operation involving material is the disk and incorporate operation (entitled "DISK + INCOR"). The material charge of $6.93 reflects 1.0 pounds (active ingredient) of Treflan. The "APPLY FERT" operation shows a material charge of $18.25. This reflects the application of 250 pounds of 0-24-24, i.e. 60 pounds of P and K.

The planting operation shows a material charge of $7.33. This reflects 55 pounds of seed. The 55 pounds is based upon a 50 pound planting rate and an assumed 10 percent replanting.

Budgets for "usual input practices" with 38-inch row spacing assume that the producer applies Basagran to only one-fourth of his acreage and the material cost of 85 cents reported for "SPRAY HCLEAR 14

ROW" is for only .0625 pounds of Basagran per acre. The cultivate and post late operation for 38-inch row spacing indicates a material charge of $1.19 for .6 pounds of Dinitro.

Two materials were increased to account for the additional linear feet of row per acre with 30-inch row spacing. The operation labeled "SPRAY HCLEAR 14 ROW" shows a material charge of $1.13 for .0828 pounds of Basagran instead of the .0625 pounds which was specified for the 38-inch row budgets. The other change involves Dinitro in the operation labeled "CULT + POST LATE". The material charge of $1.50 is for .76 pounds of Dinitro instead of the .6 pounds of Dinitro specified for the 38-inch row budgets. Seeding rate was not changed as the row width was narrowed.

High input practices---Budgets for "high input practices" (Tables 19-28) include 4 operations in the fall as opposed to only one in the "usual input practices" budgets. Most of this is a simple shift of spring seedbed operation to the fall. However, a deep chisel operation is added.

Three other differences occur. A preemerge herbicide was added to the planting operation. The materials charge of $8.52 reflects a seed charge of $7.33 (same as "usual input practices") plus .6 pounds of Dinitro per acre priced at $1.98 per pound or $1.19 per acre. A ground cracking herbicide was added. This operation is labeled "SPRAY HCLEAR 14 ROW". It appears immediately after the "PLANT + PRE" operation. This operation includes a material charge of $2.97 to reflect 1.5 pounds of Dinitro. The other difference involves Basagran. This operation is also labeled "SPRAY HCLEAR 14 ROW". The "high input practices" budgets include the treatment of the total acreage with Basagran. Consequently, the material charge of $3.41 reflects .25 pounds of Basagran per acre.

Producing soybeans in 30-inch rows requires more of some materials because of the additional linear feet of row per acre. More Dinitro is indicated for the operations labeled "PLANT + PRE" and "CULT + POST LATE". Additional Basagran is specified for the operation labeled "SPRAY HCLEAR 14 ROW".

Cotton

The "usual input practices" budgets (Tables 29-34) specify only three operations in the fall while six fall operations are included in the "high input practices" budgets (Tables 35-40). Most of these operations are moved from spring to fall but a deep-chisel operation is added in the fall. A spring re-bed operation is added to the "high input practices" budget.

Usual input practices---The first operation specifying a materials cost is disk and incorporate. It includes a charge of $6.93 for 1.0 pounds of Treflan. The first "APPLY FERT" includes a material charge of $19.37 for 250 pounds of 8-24-24. "PLANT + PRE" lists a material charge of $20.63 for 1.25 pounds of Cotoran, .3 pounds of Temik, .1 pound of Soil Treater XXX (fungicide), and 27.5 pounds of seed (based on a 25 pound seeding rate and a 10 percent replanting). The second "APPLY FERT" includes a material charge of $20.10---for 300 pounds of Ammonium Nitrate.

The material charge of $1.13 for "CULT + POST EARLY" is for .93 pounds of MSMA. The two "CULT + POST LATE" operations each include a charge for .21 pounds of KARMEX (WP). "APPLY DEFOLIATE" specifies the application of 1.43 pounds of DEF.

High input practices---These budgets specify two cultivate and post operations whereas the "usual input practices" budgets specify

only one cultivate and post operation. Additionally, the postemerge herbicide is different. The material charge of $3.52 is based upon .93 pints of MSMA plus surfacant[4/] and .4 pounds of Cotoran. The "high input practices" budgets also add two ground applications of MSMA plus surfacant. This operation is labeled "APPLY MSMA GROUND X2". The material charge of $3.64 reflects 2 pints of MSMA plus surfacant per application.

Insecticide programs---The "usual input practices" budgets specify 13 insecticide treatments and the "high input practices" budgets list 15 applications.

The "usual input practices" insecticide program is: Temik (.30 pound) applied at planting (mid-May), .20 pound of Bidrin in late May, five applications of .25 pound Guthion plus .20 pound Fundal during July and August, 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion with .20 pound Fundal in August, four applications of 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion during August and September, and one application of .25 pounds Guthion in September.

The "high input practices" insecticide program is identical to the "usual input practices" program except that six instead of five applications of .25 pounds Guthion plus .20 pounds Fundal are specified. Also, five instead of four applications of 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion, are specified.

The estimated cost of the "high input practices" insecticide program is $52.36 per acre, $6.82 more than that for "usual input practices".

[4/] One pint of MSMA plus surfacant contains .75 pounds of active MSMA.

Wheat

Tables 41 and 42 report the estimated per acre cost of producing wheat. The prime power source for wheat production is the 115-150 DBHP tractor; i.e. the same tractor that was used for the 8-row soybean and cotton budgets. The first operation labeled "APPLY FERT" requires a material charge of $15.50 for 200 pounds of 8-24-24. The planting operation includes a material charge of $6.95 for 88 pounds of seed (based upon an 80 pound seeding rate and a 10 percent replanting). The second application of fertilizer requires a material charge of $20.10 for 300 pounds of ammonium nitrate. The charge of $1.89 for "APP 2,4-D AIR" includes the cost of one pound of 2,4-D. Total material cost for producing one acre of wheat is estimated at $44.44. Fertilizer costs are $35.60 or 81 percent of total material cost.

TABLE 9 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	4	.70	.80	.56	1.01	.69	6.93	.00	10.69
APPLY FERT	4	.23	.27	.07	.12	.23	18.25	.00	19.17
FIELD CULT 12 FT	4	.47	.53	.14	.32	.46	.00	.00	1.92
SECTION HARROW	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT	5	.51	.59	.29	.64	1.01	7.33	.00	10.37
CULTIVATE EARLY	6	.58	.66	.14	.27	.58	.00	.00	2.23
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.79
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.55	.74	.21	.41	.64	1.19	.00	3.85
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.78	6.60	5.05	8.62	6.78	34.55	6.96	74.35
INTEREST ON OPERATING CAPITAL									3.01
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									77.35

TABLE 10.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS. USUAL INPUT PRACTICES. 4 ROW EQUIPMENT. 38 INCH ROW SPACING.
BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	2.48	5.70
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	12.50	.50	6.25
TREFLAN	LB	6.93	1.00	6.93
FERT 0-24-24	CWT	7.30	2.50	18.25
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.06	.85
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
EQUIPMENT	ACRE	2.16	1.00	2.16
TRACTOR	ACRE	5.78	1.00	5.78
INT ON OP CAP	ACRE	3.01	1.00	3.01
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				62.13
RETURNS ABOVE DIRECT EXPENSES				52.87
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EQUIPMENT	ACRE	4.24	1.00	4.24
TRACTOR	ACRE	6.60	1.00	6.60
TOTAL FIXED EXPENSE				15.22
TOTAL SPECIFIED EXPENSES				77.35
NET RETURN				37.65

TABLE 11 .ESTIMATED COST PER ACRE. SOYBEANS. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
APPLY FERT	4	.23	.28	.07	.12	.23	18.25	.00	19.18
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT	5	.36	.44	.30	.65	.71	7.33	.00	9.78
CULTIVATE EARLY	6	.49	.60	.19	.37	.48	.00	.00	2.12
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.42
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.42	.51	.22	.42	.41	1.19	.00	3.17
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.03	4.95	5.13	8.80	4.94	34.55	6.96	69.37
INTEREST ON OPERATING CAPITAL									2.83
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.20

TABLE 12.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING.
BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.35
OPERATOR LABOR	HOUR	2.30	1.74	4.01
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	12.50	.50	6.25
TREFLAN	LB	6.93	1.00	6.93
FERT 0-24-24	CWT	7.30	2.50	18.25
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.06	.85
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
EQUIPMENT	ACRE	2.24	1.00	2.24
TRACTOR	ACRE	4.03	1.00	4.03
INT ON OP CAP	ACRE	2.83	1.00	2.83
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				58.45
RETURNS ABOVE DIRECT EXPENSES				56.55
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EQUIPMENT	ACRE	4.42	1.00	4.42
TRACTOR	ACRE	4.95	1.00	4.95
TOTAL FIXED EXPENSE				13.76
TOTAL SPECIFIED EXPENSES				72.20
NET RETURN				42.80

TABLE 13 .ESTIMATED COST PER ACRE. SOYBEANS. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
APPLY FERT	4	.28	.33	.07	.12	.23	18.25	.00	19.28
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT	5	.31	.37	.29	.62	.51	7.33	.00	9.42
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.28
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.37	.44	.24	.46	.30	1.19	.00	2.99
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.39	5.16	5.21	8.92	4.37	34.55	6.96	69.56
INTEREST ON OPERATING CAPITAL									2.84
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.40

TABLE 14.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.11	.25
OPERATOR LABOR	HOUR	2.30	1.54	3.54
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	12.50	.50	6.25
TREFLAN	LB	6.93	1.00	6.93
FERT 0-24-24	CWT	7.30	2.50	18.25
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.06	.85
DINITRO	LB	1.98	.60	1.19
SPECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
EQUIPMENT	ACRE	2.32	1.00	2.32
TRACTOR	ACRE	4.39	1.00	4.39
INT ON OP CAP	ACRE	2.84	1.00	2.84
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				58.32
RETURNS ABOVE DIRECT EXPENSES				56.68
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EQUIPMENT	ACRE	4.54	1.00	4.54
TRACTOR	ACRE	5.16	1.00	5.16
TOTAL FIXED EXPENSE				14.08
TOTAL SPECIFIED EXPENSES				72.40
NET RETURN				42.60

TABLE 15 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
APPLY FERT	4	.23	.28	.07	.12	.23	18.25	.00	19.18
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.18	.23	.03	.06	.18	.00	.00	.69
PLANT	5	.48	.59	.41	.88	.96	7.33	.00	10.66
CULTIVATE EARLY	6	.65	.80	.26	.49	.64	.00	.00	2.84
CULTIVATE LATE	6	.44	.54	.17	.34	.44	.00	.00	1.93
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	1.13	.00	1.32
CULT + POST LATE	7	.55	.68	.29	.56	.55	1.50	.00	4.14
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.53	5.56	5.42	9.38	5.56	35.14	6.96	72.56
INTEREST ON OPERATING CAPITAL									2.91
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.47

TABLE 16.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.21	.48
OPERATOR LABOR	HOUR	2.30	1.96	4.51
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	12.50	.50	6.25
TREFLAN	LB	6.93	1.00	6.93
FERT 0-24-24	CWT	7.30	2.50	18.25
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.08	1.13
DINITRO	LB	1.98	.76	1.50
SPECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
EQUIPMENT	ACRE	2.53	1.00	2.53
TRACTOR	ACRE	4.53	1.00	4.53
INT ON OP CAP	ACRE	2.91	1.00	2.91
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				60.52
RETURNS ABOVE DIRECT EXPENSES				54.48
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EQUIPMENT	ACRE	5.00	1.00	5.00
TRACTOR	ACRE	5.56	1.00	5.56
TOTAL FIXED EXPENSE				14.95
TOTAL SPECIFIED EXPENSES				75.47
NET RETURN				39.53

TABLE 17 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
APPLY FERT	4	.28	.33	.07	.12	.23	18.25	.00	19.29
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT	5	.44	.52	.40	.87	.71	7.33	.00	10.26
CULTIVATE EARLY	6	.60	.70	.31	.59	.48	.00	.00	2.68
CULTIVATE LATE	6	.40	.47	.21	.40	.32	.00	.00	1.80
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	1.13	.00	1.32
CULT + POST LATE	7	.48	.57	.31	.60	.39	1.50	.00	3.86
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.88	5.74	5.52	9.57	4.97	35.14	6.96	72.70
INTEREST ON OPERATING CAPITAL									2.91
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.60

TABLE 18.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.35
OPERATOR LABOR	HOUR	2.30	1.71	3.94
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	12.50	.50	6.25
TREFLAN	LB	6.93	1.00	6.93
FERT 0-24-24	CWT	7.30	2.50	18.25
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.08	1.13
DINITRO	LB	1.98	.76	1.50
SPECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
EQUIPMENT	ACRE	2.63	1.00	2.63
TRACTOR	ACRE	4.88	1.00	4.88
INT ON OP CAP	ACRE	2.91	1.00	2.91
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				60.29
RETURNS ABOVE DIRECT EXPENSES				54.71
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EQUIPMENT	ACRE	5.19	1.00	5.19
TRACTOR	ACRE	5.74	1.00	5.74
TOTAL FIXED EXPENSE				15.32
TOTAL SPECIFIED EXPENSES				75.60
NET RETURN				39.40

TABLE 19 .ESTIMATED COST PER ACRE. SOYBEANS. HIGH INPUT PRACTICES. 4 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.27	.07	.12	.23	18.25	.00	19.17
DEEP CHISEL 7 SHANK	11	1.05	1.20	.38	.63	1.03	.00	.00	4.29
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.60
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	4	.70	.80	.56	1.01	.69	6.93	.00	10.69
FIELD CULT 12 FT	4	.47	.53	.14	.32	.46	.00	.00	1.92
SECTION HARROW	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT + PRE	5	.56	.64	.34	.75	1.11	8.52	.00	11.93
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.58	.66	.14	.27	.58	.00	.00	2.23
CULTIVATE LATE	6	.93	1.06	.22	.44	.92	.00	.00	3.58
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.65	.74	.21	.41	.64	1.19	.00	3.85
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		7.34	8.38	6.07	10.18	8.70	41.27	6.96	88.91
INTEREST ON OPERATING CAPITAL									4.18
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									

TABLE 20.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.24	.56
OPERATOR LABOR	HOUR	2.30	3.15	7.25
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	2.70	5.35
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.25	3.41
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	2.70	1.00	2.70
TRACTOR	ACRE	7.34	1.00	7.34
INT ON OP CAP	ACRE	4.18	1.00	4.18
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				74.53
RETURNS ABOVE DIRECT EXPENSES				40.47
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	5.20	1.00	5.20
TRACTOR	ACRE	8.38	1.00	8.38
TOTAL FIXED EXPENSE				18.56
TOTAL SPECIFIED EXPENSES				93.09
NET RETURN				21.91

TABLE 21 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.28	.07	.12	.23	18.25	.00	19.18
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.47
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.72	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT + PRE	5	.46	.56	.42	.93	.91	8.52	.00	11.80
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.49	.60	.19	.37	.48	.00	.00	2.12
CULTIVATE LATE	6	.65	.80	.26	.50	.64	.00	.00	2.85
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.42	.51	.22	.42	.41	1.19	.00	3.17
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.38	6.61	6.42	10.86	6.71	41.27	6.96	84.21
INTEREST ON OPERATING CAPITAL									3.99
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									

TABLE 22.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS. HIGH INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.20	.46
OPERATOR LABOR	HOUR	2.30	2.33	5.35
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	2.70	5.35
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.25	3.41
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	3.05	1.00	3.05
TRACTOR	ACRE	5.38	1.00	5.38
INT ON OP CAP	ACRE	3.99	1.00	3.99
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				70.73
RETURNS ABOVE DIRECT EXPENSES				44.27
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	5.88	1.00	5.88
TRACTOR	ACRE	6.61	1.00	6.61
TOTAL FIXED EXPENSE				17.48
TOTAL SPECIFIED EXPENSES				88.20
NET RETURN				26.80

TABLE 23 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.28	.33	.07	.12	.23	18.25	.00	19.29
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.92	.00	.00	4.89
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.38	.44	.36	.80	.61	8.52	.00	11.11
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.57	.67	.30	.56	.46	.00	.00	2.56
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.37	.44	.24	.46	.30	1.19	.00	2.99
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.88	6.91	6.47	10.91	5.94	41.27	6.96	84.34
INTEREST ON OPERATING CAPITAL									4.01
TOTAL SPECIFIED COSTS INCLUDING INTEREST									

TABLE 24.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.13	.30
OPERATOR LABOR	HOUR	2.30	2.06	4.74
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	2.70	5.35
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.25	3.41
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	3.10	1.00	3.10
TRACTOR	ACRE	5.88	1.00	5.88
INT ON OP CAP	ACRE	4.01	1.00	4.01
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				70.53
RETURNS ABOVE DIRECT EXPENSES				44.47
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	5.93	1.00	5.93
TRACTOR	ACRE	6.91	1.00	6.91
TOTAL FIXED EXPENSE				17.82
TOTAL SPECIFIED EXPENSES				88.35
NET RETURN				26.65

TABLE 25 .ESTIMATED COST PER ACRE. SOYBEANS. HIGH INPUT PRACTICES. 6 ROW EQUIPMENT. 30 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.28	.07	.12	.23	18.25	.00	19.18
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.47
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.18	.23	.03	.06	.18	.00	.00	.69
PLANT + PRE	5	.61	.75	.56	1.24	1.21	8.84	.00	13.21
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.65	.80	.26	.49	.64	.00	.00	2.84
CULTIVATE LATE	6	.88	1.08	.34	.68	.87	.00	.00	3.95
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	4.50	.00	5.30
CULT + POST LATE	7	.55	.68	.29	.56	.55	1.50	.00	4.14
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.02	7.40	6.78	11.61	7.49	43.00	6.96	89.25
INTEREST ON OPERATING CAPITAL									4.13
TOTAL SPECIFIED COSTS INCLUDING INTEREST									

TABLE 26.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	2.60	5.99
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	3.02	5.98
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.33	4.50
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	3.41	1.00	3.41
TRACTOR	ACRE	6.02	1.00	6.02
INT ON OP CAP	ACRE	4.13	1.00	4.13
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				74.37
RETURNS ABOVE DIRECT EXPENSES				40.63
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	6.63	1.00	6.63
TRACTOR	ACRE	7.40	1.00	7.40
TOTAL FIXED EXPENSE				19.01
TOTAL SPECIFIED EXPENSES				93.38
NET RETURN				21.62

TABLE 27 .ESTIMATED COST PER ACRE. SOYBEANS. HIGH INPUT PRACTICES. 8 ROW EQUIPMENT. 30 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.28	.33	.07	.12	.23	18.25	.00	19.29
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.92	.00	.00	4.89
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	5.93	.00	9.94
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.50	.59	.48	1.08	.81	8.84	.00	12.30
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.60	.70	.31	.59	.48	.00	.00	2.68
CULTIVATE LATE	6	.80	.94	.42	.80	.64	.00	.00	3.60
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	4.50	.00	5.30
CULT + POST LATE	7	.48	.57	.31	.60	.39	1.50	.00	3.86
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.49	7.62	6.85	11.71	6.54	43.00	6.96	89.16
INTEREST ON OPERATING CAPITAL									4.13
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON [illegible]									[illegible]

TABLE 28.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.18	.40
OPERATOR LABOR	HOUR	2.30	2.28	5.23
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	3.02	5.98
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.33	4.50
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	3.48	1.00	3.48
TRACTOR	ACRE	6.49	1.00	6.49
INT ON OP CAP	ACRE	4.13	1.00	4.13
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				73.97
RETURNS ABOVE DIRECT EXPENSES				41.03
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	6.73	1.00	6.73
TRACTOR	ACRE	7.62	1.00	7.62
TOTAL FIXED EXPENSE				19.33
TOTAL SPECIFIED EXPENSES				93.30
NET RETURN				21.70

TABLE 29 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.4
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.6
DISK HARROW 14 FT	12	.54	.61	.35	.63	.53	.00	.00	2.6
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.6
DISK + INCOR 14 FT	3	.70	.80	.56	1.01	.69	6.93	.00	10.6
APPLY FERT	4	.23	.27	.07	.12	.23	19.37	.00	20.2
DISK BED	4	.49	.56	.16	.27	.48	.00	.00	1.9
REBED	4	.49	.56	.16	.27	.48	.00	.00	1.9
ROW CONDITION	5	.23	.27	.03	.06	.23	.00	.00	.8
PLANT + PRE	5	.56	.64	.34	.75	1.11	20.63	.00	24.0
CULTIVATE EARLY	5	.58	.66	.14	.27	.58	.00	.00	2.7
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.1
APPLY FERT	6	.23	.27	.07	.12	.23	20.10	.00	21.0
CULT + POST EARLY	6	.82	.93	.27	.51	.81	1.13	.00	4.4
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.8
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.3
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.7
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.4
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.4
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.6
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.7
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.0
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.8
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.0
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.4
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.5
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.9
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.2
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.2
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.0
TOTAL SPECIFIED COSTS		8.58	9.79	24.78	41.76	16.01	103.56	53.44	257
INTEREST ON OPERATING CAPITAL									5.
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									263.

ABLE 30.ESTIMATED COST AND NET RETURNS PER ACRE
OTTON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1976.

TEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	3.68	8.47
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	1.25	8.35
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
FERT AMM NITRATE	CWT	6.70	3.00	20.10
MSMA	LB	1.21	.93	1.13
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	13.35	13.08
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
EQUIPMENT	ACRE	3.21	1.00	3.21
TRACTOR	ACRE	8.58	1.00	8.58
INT ON OP CAP	ACRE	5.75	1.00	5.75
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				212.13
RETURNS ABOVE DIRECT EXPENSES				105.52
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
EQUIPMENT	ACRE	6.16	1.00	6.16
TRACTOR	ACRE	9.79	1.00	9.79
TOTAL FIXED EXPENSE				51.55
TOTAL SPECIFIED EXPENSES				263.68
NET RETURN				53.97

TABLE 31 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.69	.85	.05	.20	.69	.00	.00	2.48
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	12	.32	.40	.34	.62	.32	.00	.00	2.00
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	3	.42	.51	.52	.96	.41	6.93	.00	9.75
APPLY FERT	4	.23	.28	.07	.12	.23	19.37	.00	20.31
DISK BED	4	.30	.37	.16	.27	.30	.00	.00	1.40
REBED	4	.30	.37	.16	.27	.30	.00	.00	1.40
ROW CONDITION	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT + PRE	5	.46	.56	.42	.93	.91	20.63	.00	23.91
CULTIVATE EARLY	5	.49	.60	.19	.37	.48	.00	.00	2.13
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.60
APPLY FERT	6	.23	.28	.07	.12	.23	20.10	.00	21.03
CULT + POST EARLY	6	.55	.68	.29	.56	.55	1.13	.00	3.76
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.42
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.80
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.80
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.66
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.71
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.82
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.27
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.21	7.63	24.93	42.12	13.63	103.56	53.44	251.52
INTEREST ON OPERATING CAPITAL									5.04
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									257.56

ABLE 32.ESTIMATED COST AND NET RETURNS PER ACRE
OTTON. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING.
LACK BELT OF NORTHEAST MISSISSIPPI. 1976.

TEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	2.69	6.18
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	1.25	8.35
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
FERT AMM NITRATE	CWT	6.70	3.00	20.10
MSMA	LB	1.21	.93	1.13
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	13.35	13.08
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
EQUIPMENT	ACRE	3.36	1.00	3.36
TRACTOR	ACRE	6.21	1.00	6.21
INT ON OP CAP	ACRE	5.54	1.00	5.54
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				207.31
RETURNS ABOVE DIRECT EXPENSES				110.34
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
EQUIPMENT	ACRE	6.52	1.00	6.52
TRACTOR	ACRE	7.63	1.00	7.63
TOTAL FIXED EXPENSE				49.76
TOTAL SPECIFIED EXPENSES				257.06
NET RETURN				60.59

TABLE 33 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.85	1.00	.05	.20	.69	.00	.00	2.80
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	12	.40	.47	.34	.62	.32	.00	.00	2.15
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	3	.51	.60	.52	.96	.41	6.93	.00	9.93
APPLY FERT	4	.28	.33	.07	.12	.23	19.37	.00	20.40
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1.27
REBED	4	.28	.33	.16	.27	.23	.00	.00	1.27
ROW CONDITION	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.38	.44	.36	.80	.61	20.63	.00	23.22
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2.06
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.60
APPLY FERT	6	.28	.33	.07	.12	.23	20.10	.00	21.13
CULT + POST EARLY	6	.51	.60	.33	.64	.41	1.13	.00	3.62
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.27
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.82
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.27
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.53	7.68	25.02	42.26	12.56	103.56	53.44	251.05
INTEREST ON OPERATING CAPITAL									5.51
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									256.56

ABLE 34.ESTIMATED COST AND NET RETURNS PER ACRE
OTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1976.

TEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.29	5.27
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	1.25	8.35
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
FERT AMM NITRATE	CWT	6.70	3.00	20.10
MSMA	LB	1.21	.93	1.13
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	13.35	13.08
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
EQUIPMENT	ACRE	3.45	1.00	3.45
TRACTOR	ACRE	6.53	1.00	6.53
INT ON OP CAP	ACRE	5.53	1.00	5.53
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				206.65
RETURNS ABOVE DIRECT EXPENSES				111.00
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
EQUIPMENT	ACRE	6.66	1.00	6.66
TRACTOR	ACRE	7.68	1.00	7.68
TOTAL FIXED EXPENSE				49.94
TOTAL SPECIFIED EXPENSES				256.59
NET RETURN				61.06

TABLE 35 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
DEEP CHISEL 7 SHANK	11	1.05	1.20	.38	.63	1.03	.00	.00	4.29
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	12	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	12	.70	.80	.56	1.01	.69	6.93	.00	10.69
DISK BED	12	.49	.56	.16	.27	.48	.00	.00	1.96
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
APPLY FERT	4	.23	.27	.07	.12	.23	19.37	.00	20.29
DISK BED	5	.49	.56	.16	.27	.48	.00	.00	1.96
REBED	5	.49	.56	.16	.27	.48	.00	.00	1.96
ROW CONDITION	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT + PRE	5	.56	.64	.34	.75	1.11	20.63	.00	24.03
CULTIVATE EARLY	5	.58	.66	.14	.27	.58	.00	.00	2.23
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.60
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.37	3.64	.00	5.23
APPLY FERT	6	.23	.27	.07	.12	.23	20.10	.00	21.01
CULT + POST EARLY	6	.82	.93	.27	.51	.81	3.52	.00	6.86
CULT + POST EARLY	6	.82	.93	.27	.51	.81	3.52	.00	6.86
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.79
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.85	.00	10.23
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.41
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.27
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		10.93	12.48	26.67	44.53	19.07	118.34	53.44	285.46
INTEREST ON OPERATING CAPITAL									6.91
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									292.37

ABLE 36.ESTIMATED COST AND NET RETURNS PER ACRE
OTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	4.69	10.79
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	2.05	13.69
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	5.86	5.33
FERT AMM NITRATE	CWT	6.70	3.00	20.10
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	18.69	18.32
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
EQUIPMENT	ACRE	4.02	1.00	4.02
TRACTOR	ACRE	10.93	1.00	10.93
INT ON OP CAP	ACRE	6.94	1.00	6.94
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				235.39
RETURNS ABOVE DIRECT EXPENSES				82.26
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
EQUIPMENT	ACRE	7.57	1.00	7.57
TRACTOR	ACRE	12.48	1.00	12.48
TOTAL FIXED EXPENSE				57.01
TOTAL SPECIFIED EXPENSES				292.40
NET RETURN				25.25

TABLE 37 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
STALK SHREDDER 2 ROW	11	.69	.85	.05	.20	.69	.00	.00	2.4
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.4
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.1
DISK HARROW 21 FT	12	.32	.40	.34	.62	.32	.00	.00	2.0
DISK + INCOR 21 FT	12	.42	.51	.52	.96	.41	6.93	.00	9.7
DISK BED	12	.30	.37	.16	.27	.30	.00	.00	1.4
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.0
APPLY FERT	4	.23	.28	.07	.12	.23	19.37	.00	20.3
DISK BED	5	.30	.37	.16	.27	.30	.00	.00	1.4
REBED	5	.30	.37	.16	.27	.30	.00	.00	1.4
ROW CONDITION	5	.23	.28	.03	.06	.23	.00	.00	.8
PLANT + PRE	5	.46	.56	.42	.93	.91	20.63	.00	23.9
CULTIVATE EARLY	5	.49	.60	.19	.37	.48	.00	.00	2.1
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.6
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.37	3.64	.00	5.2
APPLY FERT	6	.23	.28	.07	.12	.23	20.10	.00	21.0
CULT + POST EARLY	6	.55	.68	.29	.56	.55	3.52	.00	6.1
CULT + POST EARLY	6	.55	.68	.29	.56	.55	3.52	.00	6.1
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.4
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.3
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.7
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.8
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.8
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.6
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.7
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.0
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.85	.00	10.2
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.4
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.0
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.4
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.5
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.9
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.2
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.2
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.0
TOTAL SPECIFIED COSTS		7.99	9.82	27.02	45.24	16.13	118.34	53.44	277.9
INTEREST ON OPERATING CAPITAL									6.3
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									284.2

TABLE 38.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	3.46	7.95
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	2.05	13.69
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	5.86	5.33
FERT AMM NITRATE	CWT	6.70	3.00	20.10
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	18.69	18.32
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
EQUIPMENT	ACRE	4.37	1.00	4.37
TRACTOR	ACRE	7.99	1.00	7.99
INT ON OP CAP	ACRE	6.63	1.00	6.63
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				229.55
RETURNS ABOVE DIRECT EXPENSES				88.10
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
EQUIPMENT	ACRE	8.28	1.00	8.28
TRACTOR	ACRE	9.82	1.00	9.82
TOTAL FIXED EXPENSE				55.06
TOTAL SPECIFIED EXPENSES				284.62
NET RETURN				33.03

TABLE 39 ,ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTA COS
		DOLLARS							
STALK SHREDDER 2 ROW	11	.85	1.00	.05	.20	.69	.00	.00	2.8
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.42	.00	.00	4.8
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.3
DISK HARROW 21 FT	12	.40	.47	.34	.62	.32	.00	.00	2.1
DISK + INCOR 21 FT	12	.51	.60	.52	.96	.41	6.93	.00	9.9
DISK BED	12	.28	.33	.16	.27	.23	.00	.00	1.2
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.1
APPLY FERT	4	.28	.33	.07	.12	.23	19.37	.00	20.4
DISK BED	5	.28	.33	.16	.27	.23	.00	.00	1.2
REBED	5	.28	.33	.16	.27	.23	.00	.00	1.2
ROW CONDITION	5	.23	.27	.03	.06	.18	.00	.00	.7
PLANT + PRE	5	.38	.44	.36	.80	.61	20.63	.00	23.2
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2.0
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.6
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.37	3.64	.00	5.2
APPLY FERT	6	.28	.33	.07	.12	.23	20.10	.00	21.1
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.52	.00	6.0
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.52	.00	6.0
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.2
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.3
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.7
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.6
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.6
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.6
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.7
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.0
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.85	.00	10.2
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.4
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.0
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.4
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.5
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.9
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.2
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.2
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.0
TOTAL SPECIFIED COSTS		8.47	9.96	27.15	45.46	14.86	118.34	53.44	277.6
INTEREST ON OPERATING CAPITAL									6.6
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									284.3

TABLE 40.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.97	6.84
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	2.05	13.69
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	5.86	5.33
FERT AMM NITRATE	CWT	6.70	3.00	20.10
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	18.69	18.32
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
EQUIPMENT	ACRE	4.50	1.00	4.50
TRACTOR	ACRE	8.47	1.00	8.47
INT ON OP CAP	ACRE	6.64	1.00	6.64
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				228.91
RETURNS ABOVE DIRECT EXPENSES				88.74
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
EQUIPMENT	ACRE	8.50	1.00	8.50
TRACTOR	ACRE	9.96	1.00	9.96
TOTAL FIXED EXPENSE				55.42
TOTAL SPECIFIED EXPENSES				284.32
NET RETURN				33.33

TABLE 41 . ESTIMATED COST PER ACRE. WHEAT FOR GRAIN. 115-150 DBHP TRACTOR.
BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY FERT	9	.28	.33	.07	.12	.23	15.50	.00	16.54
CHISEL PLOW 16 FT	9	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	10	.40	.47	.34	.62	.32	.00	.00	2.15
SECTION HARROW	10	.28	.33	.03	.06	.23	.00	.00	.94
GRAIN DRILL 32 FT	10	.28	.33	.62	1.20	.46	6.95	.00	9.84
APP FERT - AIR	3	.00	.00	.00	.00	.07	20.10	1.50	21.67
APP 2.4-D - AIR	4	.00	.00	.00	.00	.02	1.89	3.00	4.91
COMBINE 20 FT	6	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	6	.00	.00	.00	.00	.00	.00	.92	.92
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		1.88	2.21	4.04	6.63	2.39	44.44	5.42	67.00
INTEREST ON OPERATING CAPITAL									2.50
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									69.51

TABLE 42.ESTIMATED COST AND NET RETURNS PER ACRE
WHEAT FOR GRAIN, 115-150 DBHP TRACTOR,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.34
OPERATOR LABOR	HOUR	2.30	.66	1.52
SPECIAL LABOR	HOUR	2.30	.23	.53
FERT 8-24-24	CWT	7.75	2.00	15.50
SEED	LB	.08	88.00	6.95
FERT AMM NITRATE	CWT	6.70	3.00	20.10
APP FERT - AIR	CWT	1.50	1.00	1.50
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.00	1.00	3.00
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	1.21	1.00	1.21
TRACTOR	ACRE	1.88	1.00	1.88
INT ON OP CAP	ACRE	2.50	1.00	2.50
HAUL	BU	.03	30.00	.92
TOTAL DIRECT EXPENSE				60.67
RETURNS ABOVE DIRECT EXPENSES				36.83
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	2.33	1.00	2.33
TRACTOR	ACRE	2.21	1.00	2.21
TOTAL FIXED EXPENSE				8.84
TOTAL SPECIFIED EXPENSES				69.51
NET RETURN				27.99

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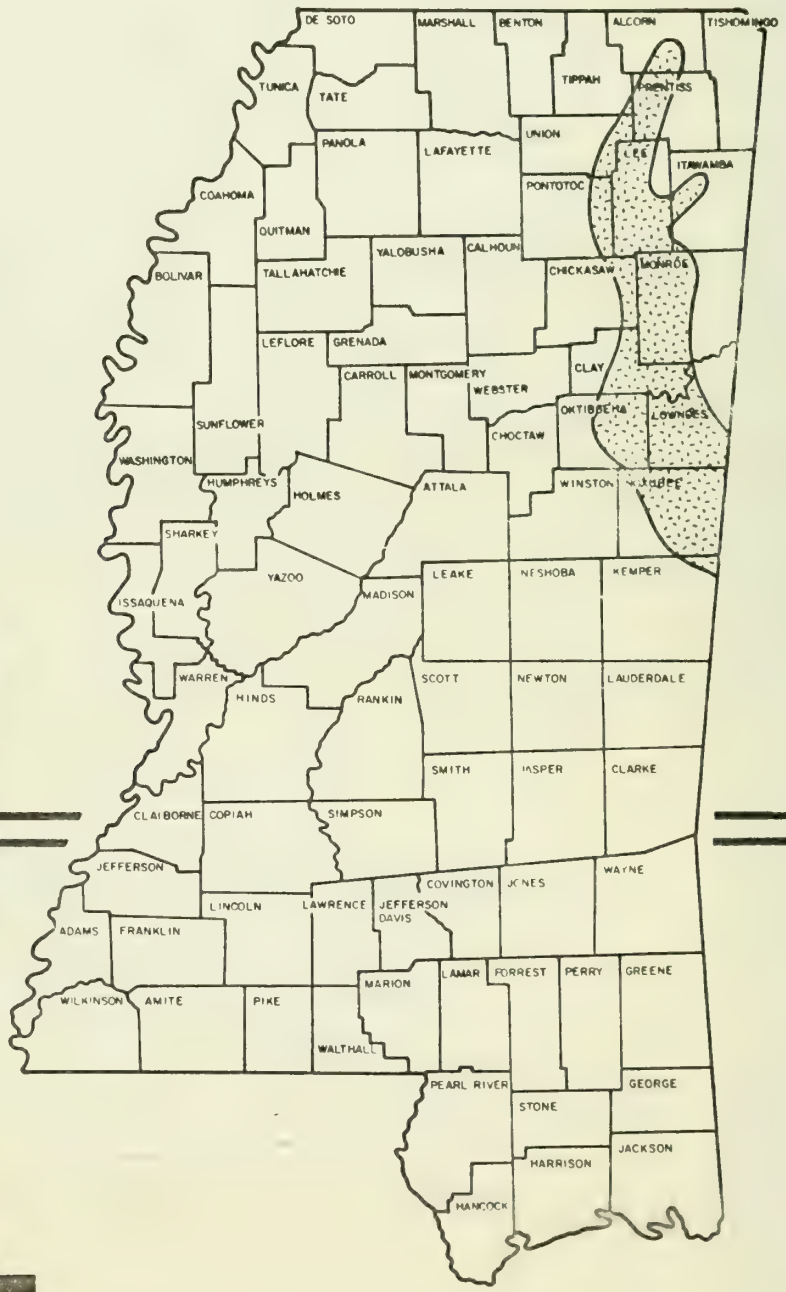

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MAFES

MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION
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CROP BUDGETS FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI

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CROP BUDGETS FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI, 1976

Specified Costs and Net Returns

The ranges of total specified costs (including interest on operating capital) are:

For soybeans---$72.20 for "usual input practices", 6-row equipment and 38-inch row spacing to $93.38 for "high input practices", 6-row equipment and 30-inch row spacing (Table 1), and

For cotton---$256.59 for "usual input practices" with 8-row equipment to $292.40 for "high input practices" with 4-row equipment.

Total specified cost of producing an acre of wheat is $69.51.

Net returns (returns to land, management and farm overhead) per acre of soybeans yielding 23 bushels and selling for $5.00 range from $21.62 for "high input practices", 6-row equipment and 30-inch row spacing to $42.80 for "usual input practices", 6-row equipment and 38-inch row spacing (Table 2).

Returns to land, management and farm overhead per acre of cotton yielding 550 pounds of lint selling for 50 cents/pound and 853 pounds of seed selling at five cents/pound range from $25.25 for "high input practices" with 4-row equipment to $61.06 for "usual input practices" with 8-row equipment.

A 30-bushel per acre wheat crop selling at $3.25 per bushel yields a net return of $27.99.

Other combinations of yields and prices result in significantly different net returns; for example, an 18 bushel bean crop produced with 4-row equipment on 38-inch row spacing with "usual input practices" will

Table 1. Summary of estimated cost per acre for soybeans, cotton and wheat, Black Belt of Northeast Mississippi, 1976.

Crop description	Row space	Equipment size	Tractor Direct cost	Tractor Fixed cost	Equipment Direct cost	Equipment Fixed cost	Labor cost	Material cost	Misc. cost	Total specified cost	Interest on operating capital	Total cost
	inches		dollars									
Soybeans- usual input practices	38	4-row	5.78	6.60	5.05	8.62	6.79	34.55	6.96	74.35	3.01	77.35
	38	6-row	4.03	4.95	5.13	8.80	4.94	34.55	6.96	69.37	2.83	72.20
	38	8-row	4.39	5.16	5.21	8.92	4.37	34.55	6.96	69.56	2.84	72.40
	30	6-row	4.53	5.56	5.42	9.38	5.56	35.14	6.96	72.56	2.91	75.47
	30	8-row	4.88	5.74	5.52	9.57	4.87	35.14	6.96	72.70	2.91	75.60
Soybeans- high input practices	38	4-row	7.34	8.38	6.07	10.18	8.70	41.27	6.96	88.91	4.18	93.09
	38	6-row	5.38	6.61	6.42	10.86	6.71	41.27	6.96	84.21	3.99	88.20
	38	8-row	5.88	6.91	6.47	10.91	5.94	41.27	6.96	84.34	4.01	88.35
	30	6-row	6.02	7.40	6.78	11.61	7.49	43.00	6.96	89.25	4.13	93.38
	30	8-row	6.49	7.62	6.85	11.71	6.54	43.00	6.96	89.16	4.13	93.30
Cotton- usual input practices	38	4-row	8.58	9.79	24.78	42.76	16.01	103.56	53.44	259.92	5.71	265.
	38	6-row	6.21	7.63	24.93	42.12	13.63	103.56	53.44	251.52	5.54	257.06
	38	8-row	6.53	7.68	25.09	42.26	12.56	103.56	53.44	251.06	5.53	256.59
Cotton- high input practices	38	4-row	10.93	12.48	26.67	44.53	19.07	118.34	53.44	285.47	6.94	292.40
	38	6-row	7.99	9.[illegible]	[illegible].02	45.[illegible]	16.13	118.34	53.44	277.99	6.62	284.[illegible]
	38	8-row	8.47	9.96	27.15	45.46	14.86	118.34	53.44	277.69	6.[illegible]	284.[illegible]
Wheat	--	115-150 DBHP	1.88	2.21	4.04	6.63	[illegible].39	44.44	5.42	67.00	2.50	69.51

Table 2. Estimated per acre returns to land, management, and farm overhead, for soybeans, cotton and wheat, by equipment size and row space, for specified yields and prices, Black Belt of Northeast Mississippi.

Crop description	Row space	Equipment size	Yield	Price levels[1/] Low	Expected	High
	inches			dollars		
Soybeans-usual input practices	38	4-row	18 bu.	-5.20	12.80	30.80
			23 bu.	14.65	37.65	60.65
			32 bu.	50.37	82.37	114.37
Soybeans-usual input practices	38	6-row	18 bu.	-.05	17.95	35.95
			23 bu.	19.80	42.80	65.80
			32 bu.	55.52	87.52	119.52
Soybeans-usual input practices	38	8-row	18 bu.	-.25	17.75	35.75
			23 bu.	19.60	42.60	65.60
			32 bu.	55.32	87.32	119.32
Soybeans-usual input practices	30	6-row	18 bu.	-3.31	14.69	32.69
			23 bu.	16.53	39.53	62.53
			32 bu.	52.26	84.26	116.26
Soybeans-usual input practices	30	8-row	18 bu.	-3.45	14.55	32.55
			23 bu.	16.40	39.40	62.40
			32 bu.	52.12	84.12	116.12
Soybeans-high input practices	38	4-row	18 bu.	-20.94	-2.94	15.06
			23 bu.	-1.09	21.91	44.91
			32 bu.	34.63	66.63	98 63
Soybeans-high input practices	38	6-row	18 bu.	-16.05	1.95	19.95
			23 bu.	3.80	26.80	49.80
			32 bu.	39.52	71.52	103.52
Soybeans-high input practices	38	8-row	18 bu.	-16.20	1.80	19.80
			23 bu.	3.65	26.65	49.65
			32 bu.	39.37	71.37	103.37
Soybeans-high input practices	30	6-row	18 bu.	-21.23	-3.23	14.77
			23 bu.	-1.38	21.62	44.62
			32 bu.	34.34	66.34	98.34
Soybeans-high input practices	30	8-row	18 bu.	-21.14	-3.14	14.86
			23 bu.	-1.30	21.70	44.70
			32 bu.	34.42	66.42	98.42

(continued)

Table 2. (continued)

Crop description	Row space	Equipment size	Yield	Price levels[1/] Low	Expected	High
	inches			--------dollars--------		
Cotton- usual input practices	38	4-row	500 lb. lint	-28.11	29.64	87.39
			550 lb. lint	-9.56	53.97	117.50
			600 lb. lint	8.96	78.26	147.56
Cotton- usual input practices	38	6-row	500 lb. lint	-21.50	36.25	94.00
			550 lb. lint	-2.94	60.59	124.12
			600 lb. lint	15.57	84.87	154.17
Cotton- usual input practices	38	8-row	500 lb. lint	-21.02	36.73	94.48
			550 lb. lint	-2.47	61.06	124.59
			600 lb. lint	16.04	85.34	154.64
Cotton- high input practices	38	4-row	500 lb. lint	-56.83	.92	58.67
			550 lb. lint	-38.28	25.25	88.78
			600 lb. lint	-19.77	49.53	118.83
Cotton- high input practices	38	6-row	500 lb. lint	-49.05	8.70	66.45
			550 lb. lint	-30.50	33.03	96.56
			600 lb. lint	-11.99	57.31	126.61
Cotton- high input practices	38	8-row	500 lb. lint	-48.76	8.99	66.74
			550 lb. lint	-30.20	33.33	96.86
			600 lb. lint	-11.69	57.61	126.91
Wheat	--	115-150 DBHP	25 bu.	-.60	11.90	24.40
			30 bu.	12.99	27.99	42.99
			35 bu.	26.59	44.09	61.59

[1/] Cotton: $.40, $.50, and $.60/lb. for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.40, $.50, and $.60 respectively. Soybeans: $4.00, $5.00, and $6.00/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

result in a loss of $5.20 per acre if beans sell for $4.00, a net return of $30.80 if beans sell for $6.00 (Table 2).

Description of the Study Area

The 1.4 million acres of Black Belt soil in Northeast Mississippi [13]* are in 13 counties[1/] [6]. However, the acreage of typical prairie soil varies from county to county and none of the counties are entirely within the Black Belt.

The geological material of the Black Belt soils is the Selma chalk formation---a soft limestone from 200 to 800 feet deep. This material under grass vegetation gave rise to prairie-like soils. The chief calcareous soils are Houston and Sumter clay on uplands, Trinty clay in bottoms, and Bell clay on the terraces. Catalpa---an alluvial deposit made up from the combined washings of the Black Belt uplands and the adjoining sandy uplands is an excellent bottom soil [5].

The Black Belt was one of the most productive areas of Mississippi when the state was first settled. An intensive agriculture, based on cotton as the major cash crop, developed early. The terrain and cultural practices stimulated sheet erosion, that continued unnoticed (because of no gullies) for many years. Today, instead of finding dark relatively deep fertile soils, limestone is found exposed in many upland fields. However, the fertility level of Black Belt soils generally still is high relative to that of other Coastal Plain soils [13].

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*Numbers in brackets refer to Literature Cited at the end of this report.

[1/] Alcorn, Chickasaw, Clay, Itawamba, Kemper, Lee, Lowndes, Monroe, Noxubee, Oktibbeha, Pontotoc, Prentiss, Union.

Crop History

Production of selected crops in the area has changed markedly in the past twenty years (Table 3).

Cotton planting has declined steadily from 261,000 acres in 1954, except for modest increases in 1961 and 1962 and again in 1969 through 1972. Cotton production in 1974 amounted to only 112,500 acres.

Soybeans were harvested from only 13,000 acres in 1954. Planted acreage of this crop in 1974 was 531,000.

Corn production in the Black Belt has declined steadily since 1954. Most corn currently produced in the area is for silage.

Wheat acreage increased from 5,000 in 1957 to a peak of 22,600 in 1968. Only 20,000 acres were planted to wheat in 1974.

Objective

The objective of this publication is to provide information on production practices and costs for selected crops grown in the Black Belt of Mississippi. Current production practices and costs of the more important agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and other workers in agriculture.

This publication complements Bulletin 843 entitled, "Cost of Production Estimates For Major Crops, Mississippi Delta, 1976" [11] and is one of a series of recent publications [2,3,7,8,9,10] dealing with the costs of crop production in Mississippi.

Data and Procedure

The production practices presented in this report were developed from a survey of 63 selected farmers in the Black Belt of Northeast Mississippi during the summer of 1975. Cost estimates were derived by

Table 3. Harvested Acres: Cotton, soybeans, corn and wheat, Black Belt of Northeast Mississippi, 1954-1974.

Year	Cotton	Soybeans	Corn	Wheat
	Acres harvested			
1954	260,950	13,100	334,100	NR*
1955	218,360	21,000	311,800	NR
1956	208,070	27,500	315,300	NR
1957	169,320	41,100	286,700	5,085
1958	126,780	55,000	264,419	3,250
1959	184,850	61,300	235,300	1,130
1960	184,060	58,050	221,500	1,395
1961	201,970	59,334	197,600	1,035
1962	201,890	65,833	158,400	990
1963	183,260	76,500	153,900	1,240
1964	186,050	86,400	137,800	2,280
1965	183,100	103,234	113,800	5,390
1966	131,400	167,200	100,300	7,750
1967	91,400	239,000	93,200	21,860
1968	107,000	295,500	77,400	22,600
1969	129,900	328,500	61,100	7,350
1970	126,400	350,500	47,400	6,950
1971	127,950	382,000	51,200	7,000
1972	135,700	435,000	35,000	9,850
1973	105,300	514,000	32,200	18,550
1974	112,500	531,200	29,900	20,550

Source: [4].

*Not reported

Table 4. Estimates of performance rates, length of life, annual use, purchase price and repair costs and of direct and fixed costs per hour and per acre, tractors and equipment of specified size, conventional row spacing, Black Belt of Northeast Mississippi, 1976.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed Costs per hour	Fixed Costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	Dollars			
Tractor	90-100		12	700	14,500	65	2.33	---	2.66	---
Tractor	100-115		12	700	15,500	55	2.31	---	2.84	---
Tractor	115-150		12	700	18,250	52	2.85	---	3.35	---
Tractor	>150		12	700	22,500	49	3.47	---	4.12	---
Tractor (4-wheel drive)	<200		12	700	32,000	49	4.24	---	5.87	---
Tractor (4-wheel drive)	>200		12	700	38,500	49	5.26	---	7.06	---
Stalk shredder	2-row	.30	10	185	825	40	.18	.05	.65	.20
Stalk shredder	4-row	.24	10	185	2,530	40	.55	.13	1.98	.48
Subsoiler	2-row	.62	15	100	605	100	.40	.25	.67	.42
Subsoiler	3-row	.52	15	100	990	100	.66	.34	1.11	.58
Deep chisel	7-shank	.45	15	100	1,265	100	.84	.38	1.41	.63
Deep chisel	11-shank	.40	15	100	2,090	100	1.39	.56	2.33	.93
Chisel plow	12 ft.	.30	12	150	1,075	70	.42	.13	.92	.28
Chisel plow	16 ft.	.22	12	150	1,760	70	.68	.15	1.51	.33
Chisel plow	21 ft.	.14	12	150	2,750	70	1.07	.15	2.35	.33
Middle breaker	6-row	.14	12	160	2,200	80	.92	.13	1.76	.25
Middle breaker	8-row	.11	12	160	2,750	80	1.14	.12	2.20	.24
Moldboard plow (2-way)	4-bottom	.30	15	120	2,860	80	1.27	.38	2.66	.80
Disk harrow	14 ft.	.23	10	180	3,410	80	1.52	.35	2.75	.63
Disk harrow	21 ft.	.14	10	180	5,500	80	2.44	.34	4.44	.62
Disk harrow	28 ft.	.10	10	180	7,700	80	3.42	.34	6.20	.62
Section harrow	6-row	.10	10	200	825	75	.31	.03	.59	.06
Section harrow	8-row	.08	10	200	1,045	75	.39	.03	.74	.06
Soil pulverizer	6-row	.15	10	100	3,080	75	2.31	.35	4.41	.67
Soil pulverizer	8-row	.12	10	100	4,675	75	3.51	.42	6.78	.81
Field cultivator	12 ft.	.20	10	100	1,100	60	.71	.14	1.39	.28
Field cultivator	21 ft.	.10	10	100	2,140	65	1.39	.14	3.11	.31
Field cultivator	42 ft.	.06	10	100	4,965	70	3.47	.21	7.20	.43
Spin spreader	---	.10	8	100	715	80	.72	.07	1.44	.14
Disk bedder	4-row	.21	8	160	1,230	80	.77	.16	1.31	.27
Disk bedder	6-row	.13	8	160	1,980	80	1.24	.16	2.11	.27
Disk bedder	8-row	.10	8	160	2,530	80	.58	.06	2.60	.26

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	----------Dollars----------			
Disk bedder & fertilizer	8-row	.12	8	160	3,025	80	1.89	.23	3.21	.39
Grain drill	12 ft.	.24	10	100	2,640	70	1.85	.44	3.83	.92
Planter & preemerge rig	4-row	.22	12	150	3,600	70	1.40	.31	3.08	.68
Planter & preemerge rig	6-row	.18	12	150	5,500	70	2.14	.38	4.71	.85
Planter & preemerge rig	8-row	.12	12	150	7,150	70	2.78	.33	6.11	.73
Planter	4-row	.20	12	150	3,400	70	1.32	.26	2.91	.58
Planter	6-row	.14	12	150	4,950	70	1.92	.27	4.23	.59
Planter	8-row	.10	12	150	6,600	70	2.57	.26	5.65	.56
Cultivator-early	4-row	.25	12	200	1,700	80	.57	.14	1.09	.27
Cultivator-early	6-row	.21	12	200	2,750	80	.92	.19	1.09	.27
Cultivator-early	8-row	.16	12	200	4,400	80	1.47	.24	2.82	.45
Cultivator-late	4-row	.20	12	200	1,700	80	.57	.11	1.09	.22
Cultivator-late	6-row	.14	12	200	2,750	80	.92	.13	1.77	.25
Cultivator-late	8-row	.10	12	200	4,400	80	1.47	.15	2.82	.28
Cultivator & postemerge rig-early	4-row	.35	12	200	2,285	80	.76	.27	1.47	.51
Cultivator & postemerge rig-early	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Cultivator & postemerge rig-early	8-row	.18	12	200	5,500	80	1.83	.33	3.53	.64
Cultivator & postemerge rig-late	4-row	.28	12	200	2,285	80	.76	.21	1.47	.41
Cultivator & postemerge rig-late	6-row	.18	12	200	3,630	80	1.21	.22	2.33	.42
Cultivator & postemerge rig-late	8-row	.13	12	200	5,500	80	1.83	.24	3.53	.46
Sprayer-high clearance	14-row	.08	8	350	8,800	80	3.38	.27	4.27	.34
Cotton picker-first picking	2-row	.75	10	200	39,500	75	16.84	12.63	28.64	21.48
Cotton picker-second picking	2-row	.55	10	200	29,500	75	16.84	9.26	28.64	15.75
Combine - soybean/wheat	20 ft.	.23	8	300	33,000	80	12.30	2.83	18.70	4.30
Cotton trailer	10-bale	---	12	200	2,420	25	.25	---	1.55	---

Table 5. Estimates of Performance Rates, Length of Life, Annual Use, Purchase Price and Repair Costs and of Direct and Fixed Costs Per Hour and Per Acre, Equipment of Specified Size, 30-inch Row Spacing, Black Belt of Northeast Mississippi, 1976.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1976 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent of Purchase price	Dollars			
Planter	6-row	.19	12	150	4,950	70	1.92	.37	4.23	.80
Planter & preemerge rig	6-row	.24	12	150	5,500	70	2.14	.51	4.71	1.13
Cultivator-early	6-row	.28	12	200	2,750	80	.92	.26	1.76	.49
Cultivator-late	6-row	.19	12	200	2,750	80	.92	.17	1.76	.34
Cultivator & postemerge rig-early	6-row	.31	12	200	3,630	80	1.21	.38	2.33	.72
Cultivator & postemerge rig-late	6-row	.24	12	200	3,630	80	1.21	.29	2.33	.56
Planter	8-row	.14	12	150	6,600	70	2.57	.36	5.65	.79
Planter & preemerge rig	8-row	.16	12	150	7,150	70	2.78	.44	6.12	.98
Cultivator-early	8-row	.21	12	200	4,400	80	1.47	.31	2.82	.59
Cultivator-late	8-row	.14	12	200	4,400	80	1.47	.21	2.82	.40
Cultivator & postemerge rig-early	8-row	.24	12	200	5,500	80	1.83	.44	3.53	.86
Cultivator & postemerge rig-late	8-row	.17	12	200	5,500	80	1.83	.31	3.53	.60

ated Prices of Defoliants, Herbicides, Fungicides and Insecticides, Black Belt of Northeast Missis-
, 1976.

	Unit[1/]	rice Dollars
	lb.	.83
	lb.	.83
te	lb.	.38
	lb.	2.55
	lb.	4.19
	lb.	13.65
	lb.	4.50
MA	pt.	1.47
	lb.	6.68
	lb.	1.89
	lb.	1.66
	lb.	.92
	pt.	.77
	lb.	1.38
	lb.	5.05
	lb.	3.88
	lb.	3.69
	lb.	7.10
	lb.	1.21
ctant	pt.	.91
	lb.	7.00
	lb.	19.39
	lb.	3.75
	lb.	8.47
	lb.	3.43
	lb.	4.81
	lb.	15.90
	pt.	.52
	lb.	1.98
	lb.	6.48
	lb.	6.93
	lb.	4.36
+ XXX	lb.	1.15
30	lb.	1.15
	lb.	2.09
	lb.	4.21
	lb.	4.06
	lb.	6.41
	lb.	3.20
+Terraclor	lb.	.44
Methyl parathion	pt.	1.06
	lb.	10.00
	lb.	5.00
	lb.	10.33
rthion	lb.	1.65
	lb.	2.01
	lb.	15.80
	lb.	.73
Methyl parathion	pt.	.98
	pt.	1.89
	lb.	8.13

ssed on a per pound active basis except for materials priced in volume and fungicides which are
asis of formulated material.

Table 7. Estimated seed, fertilizer, and other prices, Northeast Black Belt of Mississippi, 1976.

Item	Unit	Price
		Dollars
Seed:		
Alfalfa	lb.	1.32
Corn	lb.	.85
Cotton, single treated	lb.	.20
Cotton, double treated	lb.	.24
Cotton, triple treated	lb.	.27
Grain sorghum	lb.	.17
Oat	lb.	.10
Soybean	lb.	.13
Wheat	lb.	.08
Rice	lb.	.17
Fertilizer:		
0-24-24	cwt.	7.30
8-24-24	cwt.	7.71
13-13-13	cwt.	6.50
Ammonium nitrate, 33%	cwt.	6.70
Anhydrous ammonia, 82%	cwt.	6.10
Urea, solid	cwt.	6.75
Lime (custom)	ton	12.50

Table 8. Summary of aerial application costs, Northeast Black Belt of Mississippi, 1976.

Application activity	Cost per acre	Cost per 100 lbs.
	Dollars	Dollars
Fertilizer	---	1.50
Insecticide	.80	---
Lannate	1.40	---
Defoliate	1.50	---
Seed	---	1.50
Herbicide	1.50	---
2,4-D	3.00	---
2,4,5-T	3.00	---
Propanil	2.50	---

terprise budgeting---the costing of an enterprise on an operation by eration basis.

Enterprise budgets are presented for two levels of inputs for each the most important crops grown in the area. We used farm survey data identify two groups of farmers. Practices reported by the larger oup were assumed to be those most common in the area and we designated ese as "usual input practices". A relatively small number of farmers ported the use of more weed and insect control than is common in the ea and we designated these as "high input practices". Farmers who use ese levels of inputs are striving for higher yields, or they are ving more severe weed and insect problems than are generally encoun- red. It cannot be assumed that this level of inputs is more desirable, reflects a more advanced technology.

Budgets also were constructed, where appropriate, by equipment ze; i.e., 4-row, 6-row, and 8-row. In addition, soybean budgets were timated for 38-inch and 30-inch rows.

Prices used in the budgets were derived from several sources. Es- mates of 1976 machinery prices were provided late in 1975 by farm uipment dealers in the area. Tractor and machinery prices and re- ted data used in this report are included in Tables 4 and 5. Prices r agricultural chemicals, planting seed, fertilizers and other budget put materials were obtained from area dealers in late 1975 (Tables 6 l 7). Charges for aerial application of fertilizer, insecticides, rbicides, defoliants, and seed were obtained from aerial applicators the area during December, 1975 (Table 8). Consequently, these bud- s reflect 1975 production practices and estimated 1976 costs.

Commodity prices reflect estimated 1976 market prices at harvest for each crop as of December, 1975. A lower and higher price was selected to provide income data over a wider range of potential prices. Additionally, income estimates are provided for variations in yield.

Power and Machinery Costs

Estimates of equipment performance rates, length of life, annual use, and direct and fixed cost are presented in Tables 4 and 5. Cost estimates were based on prices expected in 1976. For example, a major determinant of direct or variable tractor cost is the price of diesel fuel---a price of $0.375 per gallon was used. Tractor sizes denoted in Table 2 are drawbar horsepower ratings (DBHP).[2/]

Length of life of equipment was obtained from earlier reports [1, 2] with adjustments for equipment that has come into use since those reports were issued. Length of life for each item is based on use until it has zero salvage value. Performance rates and average hours of annual use were obtained from [2] and [11].

Repair costs were based on estimated total repairs over the life of the equipment, and are expressed as a percentage of new cost. These estimates were based on unpublished data from the National Cotton Costs Surveys of the Economic Research Service, USDA. Repair costs include parts, labor, tires, and battery replacement. Repairs are one component of direct machinery costs. The other components of direct machinery costs include fuel, oil, other lubricants, and hydraulic fluid. Costs of these items are based on estimated average fuel consumption and the price of fuel.

[2/] These ratings are based upon Nebraska Tractor tests [12].

Direct and fixed cost per hour and per acre are presented for each item except tractors. Tractor costs are presented only as per hour costs. Tractor cost per acre may be calculated by multiplying tractor cost per hour by the performance rate of the tractor-drawn implement used.

Fixed costs include depreciation and interest on machinery investment. Depreciation was based on estimated total hours of use over the life of the machine. Charges for interest on machinery investment were made on the basis of average annual investment and annual hours of use, using a 9 percent per annum interest rate. Total machinery costs per acre include depreciation, interest on investment, repairs, fuel, oil and other lubricants. The details of the procedure for computing direct and fixed machinery costs are available in [1, 2, 3, 11].

Enterprise Budgets

Each enterprise budget is summarized in two budget tables.[3/] For example, Tables 9 and 10 are a set. The first table of each set reports estimated cost per acre on an operation by operation basis. The figures in the body of these tables are all dollars. The month in which an operation is usually performed is indicated. These tables allow the user to take a quick look at the cost of producing a crop on an operation by operation basis. If an operation is followed by a times sign and a whole number, (such as X2), it is duplicated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "APPLY LIME X

[3/] For convenience, all remaining tables are placed after the text.

1/4", means that lime would be applied every four years, and the listed costs are one-fourth of total costs for that operation.

Labor was charged at a rate of $2.30 per hour. Miscellaneous costs include charges for custom services, hauling costs, and ginning costs (where appropriate). A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interests charges on operating capital are for the period of time used and not for the whole year. Costs of self-propelled harvesting and spraying equipment appear under equipment costs.

The second table of each set reports estimated income and includes the quantity and price of each input used. By referring to the second table of each set the reader can determine the type of fertilizer, the price, and the quantity applied, etc.

Machinery charges are divided into three categories; special equipment, equipment and tractor. Special equipment refers to self-propelled equipment, i.e., combines, cotton pickers and high clearance sprayers. Equipment refers to towed equipment. Labor is also divided into three categories. Operator labor denotes tractor driver labor. Special labor refers to driver time for self-propelled equipment and common labor is all other labor.

None of the tables summarized in the report include charges for such items as taxes, drainage, bookkeeping, pickup truck, land or management.

The 90-100 DBHP tractor is the prime power source for all 4-row budgets. The prime power source for all 6-row budgets is the 100-115 DBHP tractor. The 115-150 DBHP tractor was used for 8-row budgets.

Soybeans

All operations and materials used for producing soybeans under "usual input practices" (Tables 9-18) are identical. Differences in these budgets result from tractor and equipment size, row spacing, and quantity of banded materials.

Usual input practices---Tractor, equipment and labor charges for a given operation differ from budget to budget because of differences in tractor and equipment size. Changes in equipment size modify labor (tractor driver time) requirements per acre and this results in variations in the labor charge per acre.

Liming is charged at an annual rate of $6.25---a charge that reflects a custom rate of $12.50 per ton with two tons applied per acre each 4 years. Operations involving only a tractor and towed equipment are self-explanatory. For such operations tractor and equipment direct and fixed costs are presented along with a labor charge. This labor charge is for the tractor driver.

The first operation involving material is the disk and incorporate operation (entitled "DISK + INCOR"). The material charge of $6.93 reflects 1.0 pounds (active ingredient) of Treflan. The "APPLY FERT" operation shows a material charge of $18.25. This reflects the application of 250 pounds of 0-24-24, i.e. 60 pounds of P and K.

The planting operation shows a material charge of $7.33. This reflects 55 pounds of seed. The 55 pounds is based upon a 50 pound planting rate and an assumed 10 percent replanting.

Budgets for "usual input practices" with 38-inch row spacing assume that the producer applies Basagran to only one-fourth of his acreage and the material cost of 85 cents reported for "SPRAY HCLEAR 14

ROW" is for only .0625 pounds of Basagran per acre. The cultivate and post late operation for 38-inch row spacing indicates a material charge of $1.19 for .6 pounds of Dinitro.

Two materials were increased to account for the additional linear feet of row per acre with 30-inch row spacing. The operation labeled "SPRAY HCLEAR 14 ROW" shows a material charge of $1.13 for .0828 pounds of Basagran instead of the .0625 pounds which was specified for the 38-inch row budgets. The other change involves Dinitro in the operation labeled "CULT + POST LATE". The material charge of $1.50 is for .76 pounds of Dinitro instead of the .6 pounds of Dinitro specified for the 38-inch row budgets. Seeding rate was not changed as the row width was narrowed.

High input practices---Budgets for "high input practices" (Tables 19-28) include 4 operations in the fall as opposed to only one in the "usual input practices" budgets. Most of this is a simple shift of spring seedbed operation to the fall. However, a deep chisel operation is added.

Three other differences occur. A preemerge herbicide was added to the planting operation. The materials charge of $8.52 reflects a seed charge of $7.33 (same as "usual input practices") plus .6 pounds of Dinitro per acre priced at $1.98 per pound or $1.19 per acre. A ground cracking herbicide was added. This operation is labeled "SPRAY HCLEAR 14 ROW". It appears immediately after the "PLANT + PRE" operation. This operation includes a material charge of $2.97 to reflect 1.5 pounds of Dinitro. The other difference involves Basagran. This operation is also labeled "SPRAY HCLEAR 14 ROW". The "high input practices" budgets include the treatment of the total acreage with Basagran. Consequently, the material charge of $3.41 reflects .25 pounds of Basagran per acre.

Producing soybeans in 30-inch rows requires more of some materials because of the additional linear feet of row per acre. More Dinitro is indicated for the operations labeled "PLANT + PRE" and "CULT + POST LATE". Additional Basagran is specified for the operation labeled "SPRAY HCLEAR 4 ROW".

Cotton

The "usual input practices" budgets (Tables 29-34) specify only three operations in the fall while six fall operations are included in the "high input practices" budgets (Tables 35-40). Most of these operations are moved from spring to fall but a deep-chisel operation is added in the fall. A spring re-bed operation is added to the "high input practices" budget.

Usual input practices---The first operation specifying a materials cost is disk and incorporate. It includes a charge of $6.93 for 1.0 pounds of Treflan. The first "APPLY FERT" includes a material charge of $19.37 for 250 pounds of 8-24-24. "PLANT + PRE" lists a material charge of $20.63 for 1.25 pounds of Cotoran, .3 pounds of Temik, .1 pound of Soil Treater XXX (fungicide), and 27.5 pounds of seed (based on a 25 pound seeding rate and a 10 percent replanting). The second "APPLY FERT" includes a material charge of $20.10---for 300 pounds of Ammonium Nitrate.

The material charge of $1.13 for "CULT + POST EARLY" is for .93 pounds of MSMA. The two "CULT + POST LATE" operations each include a charge for .21 pounds of KARMEX (WP). "APPLY DEFOLIATE" specifies the application of 1.43 pounds of DEF.

High input practices---These budgets specify two cultivate and post operations whereas the "usual input practices" budgets specify

only one cultivate and post operation. Additionally, the postemerge herbicide is different. The material charge of $3.52 is based upon .93 pints of MSMA plus surfacant[4/] and .4 pounds of Cotoran. The "high input practices" budgets also add two ground applications of MSMA plus surfacant. This operation is labeled "APPLY MSMA GROUND X2". The material charge of $3.64 reflects 2 pints of MSMA plus surfacant per application.

Insecticide programs---The "usual input practices" budgets specify 13 insecticide treatments and the "high input practices" budgets list 15 applications.

The "usual input practices" insecticide program is: Temik (.30 pound) applied at planting (mid-May), .20 pound of Bidrin in late May, five applications of .25 pound Guthion plus .20 pound Fundal during July and August, 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion with .20 pound Fundal in August, four applications of 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion during August and September, and one application of .25 pounds Guthion in September.

The "high input practices" insecticide program is identical to the "usual input practices" program except that six instead of five applications of .25 pounds Guthion plus .20 pounds Fundal are specified. Also, five instead of four applications of 2.00 pounds Toxaphene plus 1.00 pound Methyl Parathion, are specified.

The estimated cost of the "high input practices" insecticide program is $52.36 per acre, $6.82 more than that for "usual input practices".

[4/] One pint of MSMA plus surfacant contains .75 pounds of active MSMA.

Wheat

Tables 41 and 42 report the estimated per acre cost of producing wheat. The prime power source for wheat production is the 115-150 DBHP tractor; i.e. the same tractor that was used for the 8-row soybean and cotton budgets. The first operation labeled "APPLY FERT" requires a material charge of $15.50 for 200 pounds of 8-24-24. The planting operation includes a material charge of $6.95 for 88 pounds of seed (based upon an 80 pound seeding rate and a 10 percent replanting). The second application of fertilizer requires a material charge of $20.10 for 300 pounds of ammonium nitrate. The charge of $1.89 for "APP 2,4-D AIR" includes the cost of one pound of 2,4-D. Total material cost for producing one acre of wheat is estimated at $44.44. Fertilizer costs are $35.60 or 81 percent of total material cost.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	4	.70	.80	.56	1.01	.69	6.93	.00	10.69
APPLY FERT	4	.23	.27	.07	.12	.23	18.25	.00	19.17
FIELD CULT 12 FT	4	.47	.53	.14	.32	.46	.00	.00	1.92
SECTION HARROW	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT	5	.51	.59	.29	.64	1.01	7.33	.00	10.37
CULTIVATE EARLY	6	.58	.66	.14	.27	.58	.00	.00	2.23
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.79
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.55	.74	.21	.41	.69	1.19	.00	3.85
COMBINE 20 FT	10	.00	.00	2.93	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.78	6.60	5.05	8.62	6.78	34.55	6.96	74.35
INTEREST ON OPERATING CAPITAL									3.01
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									77.35

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1D.ESTIMATED COST AND NET RETURNS PER ACRE
NS. USUAL INPUT PRACTICES. 4 ROW EQUIPMENT. 38 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
BEANS	BU	5.00000	23.00	115.00
OTAL INCOME				115.00
EXPENSES				
MON LABOR	HOUR	2.30	.22	.51
RATOR LABOR	HOUR	2.30	2.48	5.70
CIAL LABOR	HOUR	2.30	.25	.57
LY LIME X1/4	TON	12.50	.50	6.25
FLAN	LB	6.93	1.00	6.93
T 0-24-24	CWT	7.30	2.50	18.25
D	LB	.13	55.00	7.33
AGRAN	LB	13.65	.06	.85
ITRO	LB	1.98	.60	1.19
CIAL EQUIPMENT	ACRE	2.90	1.00	2.90
IPMENT	ACRE	2.16	1.00	2.16
CTOR	ACRE	5.78	1.00	5.78
ON OP CAP	ACRE	3.01	1.00	3.01
IL	BU	.03	23.00	.71
OTAL DIRECT EXPENSE				62.13
ETURNS ABOVE DIRECT EXPENSES				52.87
XPENSES				
CIAL EQUIPMENT	ACRE	4.38	1.00	4.38
IPMENT	ACRE	4.24	1.00	4.24
CTOR	ACRE	6.60	1.00	6.60
OTAL FIXED EXPENSE				15.22
OTAL SPECIFIED EXPENSES				77.35
T RETURN				37.65

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
APPLY FERT	4	.23	.28	.07	.12	.23	18.25	.00	19.18
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT	5	.36	.44	.30	.65	.71	7.33	.00	9.78
CULTIVATE EARLY	6	.49	.60	.19	.37	.48	.00	.00	2.12
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.42
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.42	.51	.22	.42	.41	1.19	.00	3.17
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.03	4.95	5.13	8.80	4.84	34.55	6.96	69.37
INTEREST ON OPERATING CAPITAL									2.83
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.20

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12.ESTIMATED COST AND NET RETURNS PER ACRE
NS. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
YBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
EXPENSES				
MMON LABOR	HOUR	2.30	.15	.35
ERATOR LABOR	HOUR	2.30	1.74	4.01
ECIAL LABOR	HOUR	2.30	.25	.57
PLY LIME X1/4	TON	12.50	.50	6.25
EFLAN	LB	6.93	1.00	6.93
RT 0-24-24	CWT	7.30	2.50	18.25
ED	LB	.13	55.00	7.33
SAGRAN	LB	13.65	.06	.85
NITRO	LB	1.98	.60	1.19
ECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
UIPMENT	ACRE	2.24	1.00	2.24
ACTOR	ACRE	4.03	1.00	4.03
T ON OP CAP	ACRE	2.83	1.00	2.83
UL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				58.45
RETURNS ABOVE DIRECT EXPENSES				56.55
EXPENSES				
ECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
UIPMENT	ACRE	4.42	1.00	4.42
ACTOR	ACRE	4.95	1.00	4.95
TOTAL FIXED EXPENSE				13.76
TOTAL SPECIFIED EXPENSES				72.20
NET RETURN				42.80

TABLE 13 .ESTIMATED COST PER ACRE. SOYBEANS. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	5.93	.00	9.94
APPLY FERT	4	.28	.33	.07	.12	.23	18.25	.00	19.28
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT	5	.31	.37	.29	.62	.51	7.33	.00	9.42
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.28
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	.85	.00	1.05
CULT + POST LATE	7	.37	.44	.24	.46	.30	1.19	.00	2.99
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.19	5.16	5.21	8.92	4.37	34.55	6.96	69.56
INTEREST ON OPERATING CAPITAL									2.64
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.20

14.ESTIMATED COST AND NET RETURNS PER ACRE
ANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
E				
OYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
T EXPENSES				
OMMON LABOR	HOUR	2.30	.11	.25
PERATOR LABOR	HOUR	2.30	1.54	3.54
PECIAL LABOR	HOUR	2.30	.25	.57
PPLY LIME X1/4	TON	12.50	.50	6.25
REFLAN	LB	6.93	1.00	6.93
ERT 0-24-24	CWT	7.30	2.50	18.25
EED	LB	.13	55.00	7.33
ASAGRAN	LB	13.65	.06	.85
INITRO	LB	1.98	.60	1.19
PECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
QUIPMENT	ACRE	2.32	1.00	2.32
RACTOR	ACRE	4.39	1.00	4.39
NT ON OP CAP	ACRE	2.84	1.00	2.84
AUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				58.32
RETURNS ABOVE DIRECT EXPENSES				56.68
D EXPENSES				
SECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
EUIPMENT	ACRE	4.54	1.00	4.54
TACTOR	ACRE	5.16	1.00	5.16
TOTAL FIXED EXPENSE				14.08
TOTAL SPECIFIED EXPENSES				72.40
NET RETURN				42.60

TABLE 15.--ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6-ROW EQUIPMENT, 30-INCH ROW SPACING

TABLE 15 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
APPLY FERT	4	.23	.28	.07	.12	.23	18.25	.00	19.18
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.18	.23	.03	.06	.18	.00	.00	.69
PLANT	5	.48	.59	.41	.88	.96	7.33	.00	10.66
CULTIVATE EARLY	5	.65	.80	.26	.49	.64	.00	.00	2.84
CULTIVATE LATE	6	.44	.54	.17	.34	.44	.00	.00	1.93
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	1.13	.00	1.32
CULT + POST LATE	7	.55	.68	.29	.56	.55	1.50	.00	4.14
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.53	5.56	5.42	9.38	5.56	35.14	6.96	72.56
INTEREST ON OPERATING CAPITAL									2.91
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.47

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16.ESTIMATED COST AND NET RETURNS PER ACRE
NS. USUAL INPUT PRACTICES. 6 ROW EQUIPMENT. 30 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
YBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
EXPENSES				
MMON LABOR	HOUR	2.30	.21	.48
ERATOR LABOR	HOUR	2.30	1.96	4.51
ECIAL LABOR	HOUR	2.30	.25	.57
PLY LIME X1/4	TON	12.50	.50	6.25
EFLAN	LB	6.93	1.00	6.93
RT 0-24-24	CWT	7.30	2.50	18.25
ED	LB	.13	55.00	7.33
SAGRAN	LB	13.65	.08	1.13
NITRO	LB	1.98	.76	1.50
ECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
UIPMENT	ACRE	2.53	1.00	2.53
ACTOR	ACRE	4.53	1.00	4.53
T ON OP CAP	ACRE	2.91	1.00	2.91
UL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				60.52
RETURNS ABOVE DIRECT EXPENSES				54.48
EXPENSES				
ECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
UIPMENT	ACRE	5.00	1.00	5.00
ACTOR	ACRE	5.56	1.00	5.56
TOTAL FIXED EXPENSE				14.95
TOTAL SPECIFIED EXPENSES				75.47
NET RETURN				39.53

TABLE 17 .ESTIMATED COST PER ACRE. SOYBEANS. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. 30 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
APPLY FERT	4	.28	.33	.07	.12	.23	18.25	.00	19.28
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT	5	.44	.52	.40	.87	.71	7.33	.00	10.26
CULTIVATE EARLY	6	.60	.70	.31	.59	.48	.00	.00	2.68
CULTIVATE LATE	6	.40	.47	.21	.40	.32	.00	.00	1.80
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.08	.05	1.13	.00	1.32
CULT + POST LATE	7	.48	.57	.31	.60	.79	1.50	.00	3.86
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.88	5.74	5.52	9.57	4.97	35.14	6.96	72.70
INTEREST ON OPERATING CAPITAL									2.91
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.60

18.ESTIMATED COST AND NET RETURNS PER ACRE
NS. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. 30 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
YBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
EXPENSES				
MMON LABOR	HOUR	2.30	.15	.35
ERATOR LABOR	HOUR	2.30	1.71	3.94
ECIAL LABOR	HOUR	2.30	.25	.57
PLY LIME X1/4	TON	12.50	.50	6.25
EFLAN	LB	6.93	1.00	6.93
RT 0-24-24	CWT	7.30	2.50	18.25
ED	LB	.13	55.00	7.33
SAGRAN	LB	13.65	.08	1.13
NITRO	LB	1.98	.76	1.50
ECIAL EQUIPMENT	ACRE	2.90	1.00	2.90
UIPMENT	ACRE	2.63	1.00	2.63
ACTOR	ACRE	4.88	1.00	4.88
IT ON OP CAP	ACRE	2.91	1.00	2.91
UL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				60.29
RETURNS ABOVE DIRECT EXPENSES				54.71
EXPENSES				
ECIAL EQUIPMENT	ACRE	4.38	1.00	4.38
UIPMENT	ACRE	5.19	1.00	5.19
ACTOR	ACRE	5.74	1.00	5.74
TOTAL FIXED EXPENSE				15.32
TOTAL SPECIFIED EXPENSES				75.60
NET RETURN				39.40

TABLE 19 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.27	.07	.12	.23	18.25	.00	19.17
DEEP CHISEL 7 SHANK	11	1.05	1.20	.38	.63	1.03	.00	.00	4.29
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.60
CHISEL PLOW 12 FT	3	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	4	.70	.80	.56	1.01	.69	6.93	.00	10.69
FIELD CULT 12 FT	4	.47	.53	.14	.32	.46	.00	.00	1.92
SECTION HARROW	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT + PRE	5	.56	.64	.34	.75	1.11	8.52	.00	11.93
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.58	.66	.14	.27	.58	.00	.00	2.23
CULTIVATE LATE	6	.93	1.06	.22	.44	.92	.00	.00	3.58
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.65	.74	.21	.41	.64	1.19	.00	3.85
COMBINE 20 FT	10	.00	.00	2.33	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		7.34	8.38	6.07	10.18	8.70	41.27	6.96	88.91
INTEREST ON OPERATING CAPITAL									4.18
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									93.09

LE 20.ESTIMATED COST AND NET RETURNS PER ACRE
BEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1976.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.24	.56
OPERATOR LABOR	HOUR	2.30	3.15	7.25
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	2.70	5.35
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.25	3.41
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	2.70	1.00	2.70
TRACTOR	ACRE	7.34	1.00	7.34
INT ON OP CAP	ACRE	4.18	1.00	4.18
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				74.53
RETURNS ABOVE DIRECT EXPENSES				40.47
ED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	5.20	1.00	5.20
TRACTOR	ACRE	8.38	1.00	8.38
TOTAL FIXED EXPENSE				18.56
TOTAL SPECIFIED EXPENSES				93.09
NET RETURN				21.91

TABLE 21 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.28	.07	.12	.23	18.25	.00	19.18
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.47
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.72	.00	.00	2.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT + PRE	5	.46	.56	.42	.93	.91	8.52	.00	11.80
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.49	.60	.19	.37	.48	.00	.00	2.12
CULTIVATE LATE	6	.65	.80	.26	.50	.64	.00	.00	2.85
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.42	.51	.22	.42	.41	1.19	.00	3.17
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
AUI	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.38	6.61	6.42	10.86	6.71	41.27	6.96	84.21
INTEREST ON OPERATING CAPITAL									3.97

LE 22.ESTIMATED COST AND NET RETURNS PER ACRE
BEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1976.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
SOYBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.20	.46
OPERATOR LABOR	HOUR	2.30	2.33	5.35
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	12.50	.50	6.25
FERT 0-24-24	CWT	7.30	2.50	18.25
TREFLAN	LB	6.93	1.00	6.93
DINITRO	LB	1.98	2.70	5.35
SEED	LB	.13	55.00	7.33
BASAGRAN	LB	13.65	.25	3.41
SPECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
EQUIPMENT	ACRE	3.05	1.00	3.05
TRACTOR	ACRE	5.38	1.00	5.38
INT ON OP CAP	ACRE	3.99	1.00	3.99
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				70.73
RETURNS ABOVE DIRECT EXPENSES				44.27
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
EQUIPMENT	ACRE	5.88	1.00	5.88
TRACTOR	ACRE	6.61	1.00	6.61
TOTAL FIXED EXPENSE				17.48
TOTAL SPECIFIED EXPENSES				88.20
NET RETURN				26.80

TABLE 23 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.28	.33	.07	.12	.23	18.25	.00	19.29
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.92	.00	.00	4.89
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	6.93	.00	9.94
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.38	.44	.36	.80	.61	8.52	.00	11.11
SPRAY, HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.46	.54	.24	.45	.37	.00	.00	2.05
CULTIVATE LATE	6	.57	.67	.30	.56	.46	.00	.00	2.56
SPRAY HCLEAP 14 ROW	6	.00	.00	.27	.34	.18	3.41	.00	4.21
CULT + POST LATE	7	.37	.44	.24	.46	.30	1.19	.00	2.99
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.88	6.91	6.47	10.91	5.94	41.27	6.96	84.34
INTEREST ON OPERATING CAPITAL									4.01
TOTAL COSTS INCLUDING INTEREST ON OPERATING CAPITAL									88.35

.ESTIMATED COST AND NET RETURNS PER ACRE
, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
LT OF NORTHEAST MISSISSIPPI, 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
EANS	BU	5.00000	23.00	115.00
TAL INCOME				115.00
XPENSES				
ON LABOR	HOUR	2.30	.13	.30
ATOR LABOR	HOUR	2.30	2.06	4.74
IAL LABOR	HOUR	2.30	.39	.90
Y LIME X1/4	TON	12.50	.50	6.25
0-24-24	CWT	7.30	2.50	18.25
LAN	LB	6.93	1.00	6.93
TRO	LB	1.98	2.70	5.35
	LB	.13	55.00	7.33
GRAN	LB	13.65	.25	3.41
IAL EQUIPMENT	ACRE	3.37	1.00	3.37
PMENT	ACRE	3.10	1.00	3.10
TOR	ACRE	5.88	1.00	5.88
ON OP CAP	ACRE	4.01	1.00	4.01
	BU	.03	23.00	.71
TAL DIRECT EXPENSE				70.53
TURNS ABOVE DIRECT EXPENSES				44.47
PENSES				
IAL EQUIPMENT	ACRE	4.98	1.00	4.98
PMENT	ACRE	5.93	1.00	5.93
TOR	ACRE	6.91	1.00	6.91
TAL FIXED EXPENSE				17.82
TAL SPECIFIED EXPENSES				88.35
T RETURN				26.65

TABLE 25 .ESTIMATED COST PER ACRE. SOYBEANS. HIGH INPUT PRACTICES. 6 ROW EQUIPMENT. 30 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.23	.28	.07	.12	.23	18.25	.00	19.18
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.47
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
CHISEL PLOW 16 FT	3	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	1.00
DISK + INCOR 21 FT	4	.42	.51	.52	.96	.41	6.93	.00	9.75
FIELD CULT 21 FT	4	.23	.28	.14	.31	.23	.00	.00	1.19
SECTION HARROW	5	.18	.23	.03	.06	.18	.00	.00	.69
PLANT + PRE	5	.61	.75	.56	1.24	1.21	8.84	.00	13.21
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.65	.80	.26	.49	.64	.00	.00	2.84
CULTIVATE LATE	6	.88	1.08	.34	.68	.87	.00	.00	3.85
SPRAY HCLEAR 14 ROW	6	.00	.00	.27	.34	.18	4.50	.00	5.30
CULT + POST LATE	7	.55	.68	.29	.56	.55	1.50	.00	4.14
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.02	7.40	6.78	11.61	7.89	43.00	6.96	89.25
INTEREST ON OPERATING CAPITAL									4.13
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									93.38

26.ESTIMATED COST AND NET RETURNS PER ACRE
NS. HIGH INPUT PRACTICES. 6 ROW EQUIPMENT. 30 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
YBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
EXPENSES				
MMON LABOR	HOUR	2.30	.26	.61
ERATOR LABOR	HOUR	2.30	2.60	5.99
ECIAL LABOR	HOUR	2.30	.39	.90
PLY LIME X1/4	TON	12.50	.50	6.25
RT 0-24-24	CWT	7.30	2.50	18.25
EFLAN	LB	6.93	1.00	6.93
NITRO	LB	1.98	3.02	5.98
ED	LB	.13	55.00	7.33
SAGRAN	LB	13.65	.33	4.50
ECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
UIPMENT	ACRE	3.41	1.00	3.41
ACTOR	ACRE	6.02	1.00	6.02
T ON OP CAP	ACRE	4.13	1.00	4.13
UL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				74.37
RETURNS ABOVE DIRECT EXPENSES				40.63
EXPENSES				
ECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
UIPMENT	ACRE	6.63	1.00	6.63
ACTOR	ACRE	7.40	1.00	7.40
TOTAL FIXED EXPENSE				19.01
TOTAL SPECIFIED EXPENSES				93.38
NET RETURN				21.62

TABLE 27 .ESTIMATED COST PER ACRE. SOYBEANS. HIGH INPUT PRACTICES. 8 ROW EQUIPMENT. 30 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	6.25	6.25
APPLY FERT	11	.28	.33	.07	.12	.23	18.25	.00	19.29
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.92	.00	.00	4.89
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.35
CHISEL PLOW 16 FT	3	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	4	.51	.60	.52	.96	.41	5.93	.00	9.94
FIELD CULT 21 FT	4	.28	.33	.14	.31	.23	.00	.00	1.30
SECTION HARROW	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.50	.59	.48	1.08	.81	8.84	.00	12.30
SPRAY HCLEAR 14 ROW	5	.00	.00	.27	.34	.18	2.97	.00	3.76
CULTIVATE EARLY	6	.60	.70	.31	.59	.48	.00	.00	2.68
CULTIVATE LATE	6	.80	.94	.42	.80	.64	.00	.00	3.60
SPRAY HCLEAP 14 ROW	6	.00	.00	.27	.34	.18	4.50	.00	5.30
CULT + POST LATE	7	.48	.57	.31	.60	.39	1.50	.00	3.86
COMBINE 20 FT	10	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.49	7.62	6.85	11.71	6.54	43.00	6.96	89.16
INTEREST ON OPERATING CAPITAL									4.13
									93.30

28.ESTIMATED COST AND NET RETURNS PER ACRE
NS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
YBEANS	BU	5.00000	23.00	115.00
TOTAL INCOME				115.00
EXPENSES				
MMON LABOR	HOUR	2.30	.18	.40
ERATOR LABOR	HOUR	2.30	2.28	5.23
ECIAL LABOR	HOUR	2.30	.39	.90
PLY LIME X1/4	TON	12.50	.50	6.25
RT 0-24-24	CWT	7.30	2.50	18.25
EFLAN	LB	6.93	1.00	6.93
NITRO	LB	1.98	3.02	5.98
ED	LB	.13	55.00	7.33
SAGRAN	LB	13.65	.33	4.50
ECIAL EQUIPMENT	ACRE	3.37	1.00	3.37
UIPMENT	ACRE	3.48	1.00	3.48
RACTOR	ACRE	6.49	1.00	6.49
T ON OP CAP	ACRE	4.13	1.00	4.13
AUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				73.97
RETURNS ABOVE DIRECT EXPENSES				41.03
EXPENSES				
ECIAL EQUIPMENT	ACRE	4.98	1.00	4.98
UIPMENT	ACRE	6.73	1.00	6.73
RACTOR	ACRE	7.62	1.00	7.62
TOTAL FIXED EXPENSE				19.33
TOTAL SPECIFIED EXPENSES				93.30
NET RETURN				21.70

TABLE 29 .ESTIMATED COST PER ACRE. COTTON. USUAL INPUT PRACTICES. 4 ROW EQUIPMENT. 38 INCH ROW SPACING. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	12	.54	.61	.35	.63	.53	.00	.00	2.66
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	3	.70	.80	.56	1.01	.69	6.93	.00	10.69
APPLY FERT	4	.23	.27	.07	.12	.23	19.37	.00	20.29
DISK BED	4	.49	.56	.16	.27	.48	.00	.00	1.96
REBED	4	.49	.56	.16	.27	.48	.00	.00	1.96
ROW CONDITION	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT + PRE	5	.56	.64	.34	.75	1.11	20.63	.00	24.04
CULTIVATE EARLY	5	.58	.66	.14	.27	.58	.00	.00	2.23
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
APPLY FERT	6	.23	.27	.07	.12	.23	20.10	.00	21.02
CULT + POST EARLY	6	.82	.93	.27	.51	.81	1.13	.00	4.86
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.79
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.00	3.70
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.00	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.82
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		8.58	9.79	24.78	41.76	16.01	103.58	53.44	257.93
INTEREST ON OPERATING CAPITAL									5.75
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									263.68

30.ESTIMATED COST AND NET RETURNS PER ACRE
. USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
TTON LINT	LB	.50000	550.00	275.00
TTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
EXPENSES				
MMON LABOR	HOUR	2.30	1.42	3.26
ERATOR LABOR	HOUR	2.30	3.68	8.47
ECIAL LABOR	HOUR	2.30	1.86	4.28
EFLAN	LB	6.93	1.00	6.93
RT 8-24-24	CWT	7.75	2.50	19.37
TORAN	LB	6.68	1.25	8.35
MIK	LB	15.80	.30	4.74
IL TREATER XXX	LB	1.15	.10	.11
ED TRIPLE TREATED	LB	.27	27.50	7.42
DRIN	LB	4.06	.20	.81
RT AMM NITRATE	CWT	6.70	3.00	20.10
MA	LB	1.21	.93	1.13
THION	LB	5.00	1.50	7.50
NDAL	LB	8.13	1.20	9.76
PLY INS AIR	ACRE	.80	4.00	3.20
RMEX (WP)	LB	3.88	.42	1.63
X + METHYL PARA	PT	.98	13.35	13.08
FOLIANT	LB	1.83	1.43	2.62
ECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
UIPMENT	ACRE	3.21	1.00	3.21
RACTOR	ACRE	8.58	1.00	8.58
T ON OP CAP	ACRE	5.75	1.00	5.75
UL	LB	.01	550.00	6.24
N	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				212.13
RETURNS ABOVE DIRECT EXPENSES				105.52
EXPENSES				
ECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
UIPMENT	ACRE	6.16	1.00	6.16
RACTOR	ACRE	9.79	1.00	9.79
TOTAL FIXED EXPENSE				51.55
TOTAL SPECIFIED EXPENSES				263.68
NET RETURN				53.97

TABLE 31 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.69	.85	.05	.20	.69	.00	.00	2.48
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.12
DISK HARROW 21 FT	12	.32	.40	.34	.62	.32	.00	.00	2.00
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.00
DISK + INCOR 21 FT	3	.42	.51	.52	.96	.41	6.93	.00	9.76
APPLY FERT	4	.23	.28	.07	.12	.23	19.37	.00	20.33
DISK BED	4	.30	.37	.16	.27	.30	.00	.00	1.40
REBED	4	.30	.37	.16	.27	.30	.00	.00	1.40
ROW CONDITION	5	.23	.28	.03	.06	.23	.00	.00	.83
PLANT + PRE	5	.46	.56	.42	.93	.91	20.63	.00	23.91
CULTIVATE EARLY	5	.49	.60	.19	.37	.48	.00	.00	2.13
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
APPLY FERT	6	.23	.28	.07	.12	.23	20.10	.00	21.03
CULT + POST EARLY	6	.55	.68	.29	.56	.55	1.13	.00	3.76
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.41
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.81
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.80
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.82
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.21	7.63	24.93	42.12	13.63	103.56	53.44	251.52
INTEREST ON OPERATING CAPITAL									5.58
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									257.10

32.ESTIMATED COST AND NET RETURNS PER ACRE
• USUAL INPUT PRACTICES• 6 ROW EQUIPMENT• 38 INCH ROW SPACING•
BELT OF NORTHEAST MISSISSIPPI• 1976•

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
TTON LINT	LB	.50000	550.00	275.00
TTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
EXPENSES				
MMON LABOR	HOUR	2.30	1.37	3.16
ERATOR LABOR	HOUR	2.30	2.69	6.18
ECIAL LABOR	HOUR	2.30	1.86	4.28
EFLAN	LB	6.93	1.00	6.93
RT 8-24-24	CWT	7.75	2.50	19.37
TORAN	LB	6.68	1.25	8.35
MIK	LB	15.80	.30	4.74
IL TREATER XXX	LB	1.15	.10	.11
ED TRIPLE TREATED	LB	.27	27.50	7.42
DRIN	LB	4.06	.20	.81
RT AMM NITRATE	CWT	6.70	3.00	20.10
MA	LB	1.21	.93	1.13
THION	LB	5.00	1.50	7.50
NDAL	LB	8.13	1.20	9.76
PLY INS AIR	ACRE	.80	4.00	3.20
RMEX (WP)	LB	3.88	.42	1.63
X + METHYL PARA	PT	.98	13.35	13.08
FOLIANT	LB	1.83	1.43	2.62
ECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
UIPMENT	ACRE	3.36	1.00	3.36
ACTOR	ACRE	6.21	1.00	6.21
T ON OP CAP	ACRE	5.54	1.00	5.54
UL	LB	.01	550.00	6.24
N	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				207.31
RETURNS ABOVE DIRECT EXPENSES				110.34
EXPENSES				
ECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
UIPMENT	ACRE	6.52	1.00	6.52
ACTOR	ACRE	7.63	1.00	7.63
TOTAL FIXED EXPENSE				49.76
TOTAL SPECIFIED EXPENSES				257.06
NET RETURN				60.59

TABLE 33 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.85	1.00	.05	.20	.69	.00	.00	2.80
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.36
DISK HARROW 21 FT	12	.40	.47	.34	.62	.32	.00	.00	2.15
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	3	.51	.60	.52	.96	.41	6.93	.00	9.93
APPLY FERT	4	.28	.33	.07	.12	.23	19.37	.00	20.40
DISK BED	4	.28	.33	.16	.27	.23	.00	.00	1.27
REBED	4	.28	.33	.16	.27	.23	.00	.00	1.28
ROW CONDITION	5	.23	.27	.03	.06	.18	.00	.00	.77
PLANT + PRE	5	.38	.44	.36	.80	.61	20.63	.00	23.22
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2.15
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
APPLY FERT	6	.28	.33	.07	.12	.23	20.10	.00	21.
CULT + POST EARLY	6	.51	.60	.33	.64	.41	1.13	.00	3.63
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.27
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.86	.80	3.70
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.03
APPLY INS GROUND X2	8	.00	.00	.54	.68	.37	5.23	.00	6.82
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.53	7.68	25.02	42.26	12.56	103.56	53.44	251.06
INTEREST ON OPERATING CAPITAL									5.53
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									256.59

E 34.ESTIMATED COST AND NET RETURNS PER ACRE
ON. USUAL INPUT PRACTICES. 8 ROW EQUIPMENT. 38 INCH ROW SPACING.
X BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
ME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
CT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.29	5.27
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	1.25	8.35
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
FERT AMM NITRATE	CWT	6.70	3.00	20.10
MSMA	LB	1.21	.93	1.13
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
FOX + METHYL PARA	PT	.98	13.35	13.08
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	21.57	1.00	21.57
EQUIPMENT	ACRE	3.45	1.00	3.45
RACTOR	ACRE	6.53	1.00	6.53
NT ON OP CAP	ACRE	5.53	1.00	5.53
HAUL	LB	.01	550.00	6.24
BIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				206.65
RETURNS ABOVE DIRECT EXPENSES				111.00
E EXPENSES				
PECIAL EQUIPMENT	ACRE	35.60	1.00	35.60
QUIPMENT	ACRE	6.66	1.00	6.66
RACTOR	ACRE	7.68	1.00	7.68
TOTAL FIXED EXPENSE				49.94
TOTAL SPECIFIED EXPENSES				256.59
NET RETURN				61.06

TABLE 35 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.70	.80	.05	.20	.69	.00	.00	2.44
DEEP CHISEL 7 SHANK	11	1.05	1.20	.38	.63	1.03	.00	.00	4.29
CHISEL PLOW 12 FT	11	.70	.80	.13	.28	.69	.00	.00	2.60
DISK HARROW 14 FT	12	.54	.61	.35	.63	.53	.00	.00	2.66
DISK + INCOR 14 FT	12	.70	.80	.56	1.01	.69	6.93	.00	10.69
DISK BED	12	.49	.56	.16	.27	.48	.00	.00	1.96
DISK HARROW 14 FT	3	.54	.61	.35	.63	.53	.00	.00	2.66
APPLY FERT	4	.23	.27	.07	.12	.23	19.37	.00	20.29
DISK BED	5	.49	.56	.16	.27	.48	.00	.00	1.96
REBED	5	.49	.56	.16	.27	.48	.00	.00	1.96
ROW CONDITION	5	.23	.27	.03	.06	.23	.00	.00	.82
PLANT + PRE	5	.56	.64	.34	.75	1.11	20.63	.00	24.03
CULTIVATE EARLY	5	.58	.66	.14	.27	.58	.00	.00	2.23
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.61
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.37	3.69	.00	5.27
APPLY FERT	6	.23	.27	.07	.12	.23	20.10	.00	21.02
CULT + POST EARLY	6	.82	.93	.27	.51	.91	3.52	.00	6.96
CULT + POST EARLY	6	.82	.93	.27	.51	.91	3.52	.00	6.96
CULTIVATE LATE	6	.47	.53	.11	.22	.46	.00	.00	1.79
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
CULT + POST LATE	7	.65	.74	.21	.41	.64	.81	.00	3.46
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.66
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.04
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.85	.00	10.23
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.41
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		10.93	12.48	26.67	44.53	19.07	118.34	53.44	285.47
INTEREST ON OPERATING CAPITAL									6.99
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									292.46

TABLE 36.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.50000	550.00	275.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	4.63	10.79
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.93	1.00	6.93
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	6.68	2.05	13.69
TEMIK	LB	15.80	.30	4.74
SOIL TREATER XXX	LB	1.15	.10	.11
SEED TRIPLE TREATED	LB	.27	27.50	7.42
BIDRIN	LB	4.06	.20	.81
MSMA + SURFACTANT	PT	.91	5.86	5.33
FERT AMM NITRATE	CWT	6.70	3.00	20.10
GUTHION	LB	5.00	1.50	7.50
FUNDAL	LB	8.13	1.20	9.76
APPLY INS AIR	ACRE	.80	4.00	3.20
KARMEX (WP)	LB	3.88	.42	1.63
TOX + METHYL PARA	PT	.98	18.69	18.32
DEFOLIANT	LB	1.83	1.43	2.62
SPECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
EQUIPMENT	ACRE	4.02	1.00	4.02
TRACTOR	ACRE	10.93	1.00	10.93
INT ON OP CAP	ACRE	6.94	1.00	6.94
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				235.39
RETURNS ABOVE DIRECT EXPENSES				82.26
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
EQUIPMENT	ACRE	7.57	1.00	7.57
TRACTOR	ACRE	12.48	1.00	12.48
TOTAL FIXED EXPENSE				57.01
TOTAL SPECIFIED EXPENSES				292.40
NET RETURN				25.25

TABLE 37 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.69	.85	.05	.20	.59	.00	.00	2.4
DEEP CHISEL 11 SHANK	11	.92	1.14	.56	.93	.92	.00	.00	4.4
CHISEL PLOW 16 FT	11	.51	.62	.15	.33	.51	.00	.00	2.1
DISK HARROW 21 FT	12	.32	.40	.34	.62	.32	.00	.00	2.0
DISK + INCOR 21 FT	12	.42	.51	.52	.96	.41	6.33	.00	9.1
DISK BED	12	.30	.37	.16	.27	.30	.00	.00	1.4
DISK HARROW 21 FT	3	.32	.40	.34	.62	.32	.00	.00	2.0
APPLY FERT	4	.23	.28	.07	.12	.23	19.37	.00	20.3
DISK BED	5	.30	.37	.16	.27	.30	.00	.00	1.4
REBED	5	.30	.37	.16	.27	.30	.00	.00	1.4
ROW CONDITION	5	.23	.28	.03	.06	.23	.00	.00	.8
PLANT + PRE	5	.46	.56	.42	.93	.91	20.63	.00	24.
CULTIVATE EARLY	5	.49	.60	.19	.37	.48	.00	.00	2.
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.01	.00	.8
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.57	3.64	.00	5.4
APPLY FERT	6	.23	.28	.07	.12	.23	20.10	.00	21.0
CULT + POST EARLY	6	.55	.68	.29	.56	.54	3.52	.00	6.3
CULT + POST EARLY	6	.55	.68	.29	.56	.55	3.52	.00	6.3
CULTIVATE LATE	6	.32	.40	.13	.25	.32	.00	.00	1.4
APPLY INS GROUND X2	7	.00	.00	.54	.68	.77	5.75	.00	7.7
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.68	.80	3.5
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.8
CULT + POST LATE	7	.42	.51	.22	.42	.41	.81	.00	2.8
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.6
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.7
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.0
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.05	.00	10.2
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.4
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.4
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.0
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.4
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.5
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.9
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.2
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.2
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.0
TOTAL SPECIFIED COSTS		7.99	9.82	27.02	45.28	16.13	119.34	53.44	279.0
INTEREST ON OPERATING CAPITAL									8.3
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									287.3

38.ESTIMATED COST AND NET RETURNS PER ACRE
N. HIGH INPUT PRACTICES. 6 ROW EQUIPMENT. 38 INCH ROW SPACING.
BELT OF NORTHEAST MISSISSIPPI. 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
E				
OTTON LINT	LB	.50000	550.00	275.00
OTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
T EXPENSES				
OMMON LABOR	HOUR	2.30	1.37	3.16
PERATOR LABOR	HOUR	2.30	3.46	7.95
PECIAL LABOR	HOUR	2.30	2.18	5.02
REFLAN	LB	6.93	1.00	6.93
ERT 8-24-24	CWT	7.75	2.50	19.37
OTORAN	LB	6.68	2.05	13.69
EMIK	LB	15.80	.30	4.74
OIL TREATER XXX	LB	1.15	.10	.11
EED TRIPLE TREATED	LB	.27	27.50	7.42
IDRIN	LB	4.06	.20	.81
SMA + SURFACTANT	PT	.91	5.86	5.33
ERT AMM NITRATE	CWT	6.70	3.00	20.10
UTHION	LB	5.00	1.50	7.50
UNDAL	LB	8.13	1.20	9.76
PPLY INS AIR	ACRE	.80	4.00	3.20
ARMEX (WP)	LB	3.88	.42	1.63
DX + METHYL PARA	PT	.98	18.69	18.32
EFOLIANT	LB	1.83	1.43	2.62
PECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
QUIPMENT	ACRE	4.37	1.00	4.37
RACTOR	ACRE	7.99	1.00	7.99
NT ON OP CAP	ACRE	6.63	1.00	6.63
AUL	LB	.01	550.00	6.24
IN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				229.55
RETURNS ABOVE DIRECT EXPENSES				88.10
E EXPENSES				
PECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
QUIPMENT	ACRE	8.28	1.00	8.28
RACTOR	ACRE	9.82	1.00	9.82
TOTAL FIXED EXPENSE				55.06
TOTAL SPECIFIED EXPENSES				284.62
NET RETURN				33.03

TABLE 39 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, [illegible] INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	[illegible] COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.85	1.00	.05	.20	.69	.00	.00	2.8[illegible]
DEEP CHISEL 11 SHANK	11	1.14	1.34	.56	.93	.92	.00	.00	4.89
CHISEL PLOW 16 FT	11	.63	.74	.15	.33	.51	.00	.00	2.36
DISK HARROW 21 FT	12	.40	.47	.34	.62	.32	.00	.00	2.15
DISK + INCOR 21 FT	12	.51	.60	.52	.96	.41	6.93	.00	9.[illegible]
DISK BED	12	.28	.33	.16	.27	.23	.00	.00	1.28
DISK HARROW 21 FT	3	.40	.47	.34	.62	.32	.00	.00	2.[illegible]
APPLY FERT	4	.28	.33	.07	.12	.23	19.37	.00	20.41
DISK BED	5	.28	.33	.16	.27	.23	.00	.00	1.[illegible]
REBED	5	.28	.33	.16	.27	.23	.00	.00	1.2[illegible]
ROW CONDITION	5	.23	.27	.03	.06	.18	.00	.00	.7[illegible]
PLANT + PRE	5	.38	.44	.36	.80	.61	20.63	.00	23.[illegible]
CULTIVATE EARLY	5	.46	.54	.24	.45	.37	.00	.00	2.05
APPLY INS GROUND	5	.00	.00	.27	.34	.18	.81	.00	1.[illegible]
APPLY MSMA GROUND X2	6	.00	.00	.54	.68	.37	3.64	.00	5.23
APPLY FERT	6	.28	.33	.07	.12	.23	20.10	.00	21.[illegible]
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.52	.00	6.00
CULT + POST EARLY	6	.51	.60	.33	.64	.41	3.52	.00	6.01
CULTIVATE LATE	6	.28	.33	.15	.28	.23	.00	.00	1.27
APPLY INS GROUND X2	7	.00	.00	.54	.68	.37	5.75	.00	7.34
APPLY INS AIR	7	.00	.00	.00	.00	.02	2.88	.80	3.70
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
CULT + POST LATE	7	.37	.44	.24	.46	.30	.81	.00	2.62
APPLY INS GROUND	8	.00	.00	.27	.34	.18	2.88	.00	3.67
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.88	.80	3.70
APPLY INS GROUND	8	.00	.00	.27	.34	.18	4.24	.00	5.04
APPLY INS GROUND X3	8	.00	.00	.81	1.02	.55	7.85	.00	10.23
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	2.62	.00	3.41
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.62	.80	3.44
APPLY INS GROUND	9	.00	.00	.27	.34	.18	1.25	.00	2.04
APPLY DEFOLIATE	9	.00	.00	.30	.37	.20	2.62	.00	3.49
1ST PICK 2 ROW	10	.00	.00	12.63	21.48	3.45	.00	.00	37.56
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.[illegible]
2ND PICK 2 ROW	10	.00	.00	6.48	11.02	1.77	.00	.00	19.28
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.[illegible]
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		8.47	9.96	27.15	45.46	19.86	118.34	53.44	277.
INTEREST ON OPERATING CAPITAL									6.[illegible]
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									284.[illegible]

40.ESTIMATED COST AND NET RETURNS PER ACRE
, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1976.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
TTON LINT	LB	.50000	550.00	275.00
TTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				317.65
EXPENSES				
MMON LABOR	HOUR	2.30	1.31	3.01
ERATOR LABOR	HOUR	2.30	2.97	6.84
ECIAL LABOR	HOUR	2.30	2.18	5.02
EFLAN	LB	6.93	1.00	6.93
RT 8-24-24	CWT	7.75	2.50	19.37
TORAN	LB	6.68	2.05	13.69
MIK	LB	15.80	.30	4.74
IL TREATER XXX	LB	1.15	.10	.11
ED TRIPLE TREATED	LB	.27	27.50	7.42
DRIN	LB	4.06	.20	.81
MA + SURFACTANT	PT	.91	5.86	5.33
RT AMM NITRATE	CWT	6.70	3.00	20.10
THION	LB	5.00	1.50	7.50
NDAL	LB	8.13	1.20	9.76
PLY INS AIR	ACRE	.80	4.00	3.20
RMEX (WP)	LB	3.88	.42	1.63
X + METHYL PARA	PT	.98	18.69	18.32
FOLIANT	LB	1.83	1.43	2.62
ECIAL EQUIPMENT	ACRE	22.65	1.00	22.65
UIPMENT	ACRE	4.50	1.00	4.50
ACTOR	ACRE	8.47	1.00	8.47
T ON OP CAP	ACRE	6.64	1.00	6.64
UL	LB	.01	550.00	6.24
N	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				228.91
RETURNS ABOVE DIRECT EXPENSES				88.74
EXPENSES				
SECIAL EQUIPMENT	ACRE	36.96	1.00	36.96
UIPMENT	ACRE	8.50	1.00	8.50
ACTOR	ACRE	9.96	1.00	9.96
TOTAL FIXED EXPENSE				55.42
TOTAL SPECIFIED EXPENSES				284.32
NET RETURN				33.33

TABLE 41 . ESTIMATED COST PER ACRE. WHEAT FOR GRAIN. 115-150 DBHP TRACTOR. BLACK BELT OF NORTHEAST MISSISSIPPI. 1976.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY FERT	9	.28	.33	.07	.12	.23	15.50	.00	16.54
CHISEL PLOW 16 FT	9	.63	.74	.15	.33	.51	.00	.00	2.35
DISK HARROW 21 FT	10	.40	.47	.34	.62	.32	.00	.00	2.15
SECTION HARROW	10	.28	.33	.03	.06	.23	.00	.00	.94
GRAIN DRILL 32 FT	10	.28	.33	.62	1.20	.46	6.95	.00	9.84
APP FERT - AIR	3	.00	.00	.00	.00	.07	20.10	1.50	21.67
APP 2.4-D - AIR	4	.00	.00	.00	.00	.02	1.89	3.00	4.91
COMBINE 20 FT	6	.00	.00	2.83	4.30	.53	.00	.00	7.66
HAUL	6	.00	.00	.00	.00	.00	.00	.92	.92
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		1.88	2.21	4.04	6.63	2.39	44.44	5.42	67.00
INTEREST ON OPERATING CAPITAL									2.50
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									69.51

LE 42.ESTIMATED COST AND NET RETURNS PER ACRE
AT FOR GRAIN, 115-150 DBHP TRACTOR,
CK BELT OF NORTHEAST MISSISSIPPI, 1976.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.34
OPERATOR LABOR	HOUR	2.30	.66	1.52
SPECIAL LABOR	HOUR	2.30	.23	.53
FERT 8-24-24	CWT	7.75	2.00	15.50
SEED	LB	.08	88.00	6.95
FERT AMM NITRATE	CWT	6.70	3.00	20.10
APP FERT - AIR	CWT	1.50	1.00	1.50
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.00	1.00	3.00
SPECIAL EQUIPMENT	ACRE	2.83	1.00	2.83
EQUIPMENT	ACRE	1.21	1.00	1.21
TRACTOR	ACRE	1.88	1.00	1.88
INT ON OP CAP	ACRE	2.50	1.00	2.50
HAUL	BU	.03	30.00	.92
TOTAL DIRECT EXPENSE				60.67
RETURNS ABOVE DIRECT EXPENSES				36.83
D EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.30	1.00	4.30
EQUIPMENT	ACRE	2.33	1.00	2.33
TRACTOR	ACRE	2.21	1.00	2.21
TOTAL FIXED EXPENSE				8.84
TOTAL SPECIFIED EXPENSES				69.51
NET RETURN				27.99

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Occupational Aspirations and Achievements of Mississippi Youth

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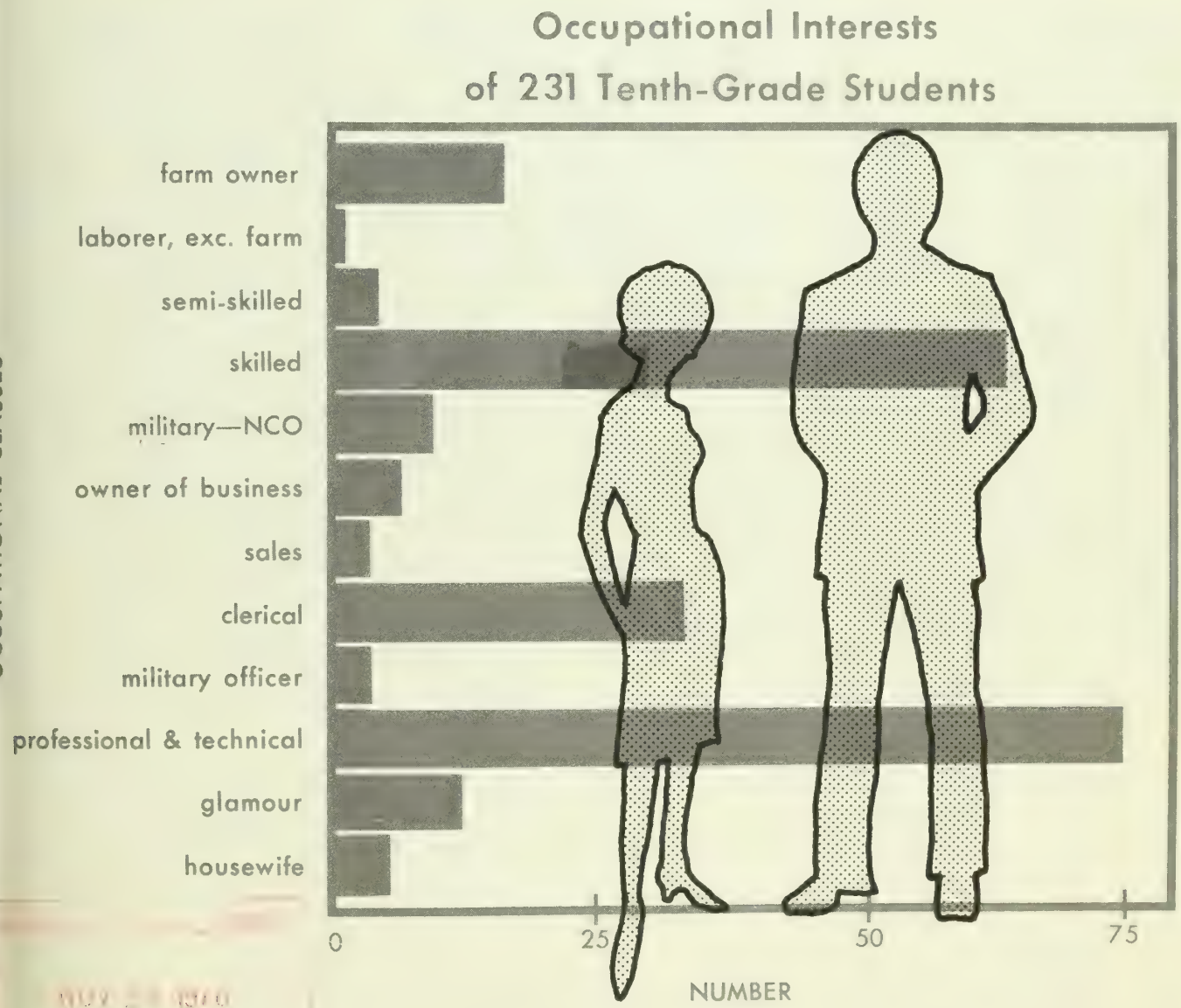

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MAFES MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION
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Occupational Aspirations and Achievements of Mississippi Youth

One essential process of society is preparing its members for various responsibilities, including those associated with the production and distribution of consumer goods and services. This process is largely in the hands of educational institutions in American society. The result of the process is entry into the labor force of young men and women who will operate the machines, till the soil, market finished products and, in general, fill job vacancies created by retirement, new technology, migration and other changes in the socio-economic system.

Entry into the labor force becomes simply a matter of finding a job for many young persons. Others, however, have definite ideas about the kind of work they want to do. Their choices are affected by many factors and the choices they make in turn affect them and their society.

Congruence between occupational aspiration and occupational attainment---achieving what one aspires to---is the outcome of interaction between different variables, including those over which the individual exercises little if any control and about which he may be unaware. The young person, for example, who decides while he is in high school that he would like to become a physician likely is totally ignorant of the ways in which competition is expressed among medical students for good grades.

Many youth find work to match their aspirations but there is evidence that many do not. The likelihood of frustration is greater for those who do not. Miller and Form (1951) pointed out several years ago that painful experiences result from the necessity of lowering one's aspirations to "fit the realities of the occupational world."

One aspect of quality of life is job satisfaction and a contribution can be made to the quality of life by reducing disparity between job aspiration and job achievement. Reducing the disparity is a difficult problem because so many factors affect job aspiration and achievement. It is important that vocational counselors know not only the talents and abilities of students with whom they work but also their expectations and aspirations and the factors that influence their choices. This knowledge should make the counselling process more effective.

Purpose and Method

The purpose of this report is to present results of a study of the occupational interests and achievements of a group of Mississippi rural and small-town youth. The report is based on panel data; i.e., data collected at two points in time from the same group of respondents. Tenth-grade students in Hancock and Noxubee County Schools were interviewed on a group basis in 1966.

Included in the study were 234 students, both black and white and male and female. A loss of cases was experienced when reinterviews were conducted in 1972. Therefore, only 146 reinterviews were completed. Most of those not reinterviewed simply could not be located, given the time and resources available for the reinterviewing phase of the study.

Elimination of incomplete questionnaires and those for respondents who were still students reduced the number of usable questionnaires to 131.

Occupational Interests

A major concern in the 1966 survey was the kind of work students were interested in. The 234 respondents interviewed in 1966 (Table 1) were asked to list the types of job they would choose if they were completely free to make the choice. Their choices, classified according to a modified Edwards Index[1] are shown in Table 2.

[1] *Modified Edwards categories represent an attempt to order occupations in a hierarchy ranging from low to high with ranks, in general, reflecting prestige, income and educational differences. The index is not perfect, but research has shown that it is fairly accurate.*

Aspirations ranged across a wide spectrum of occupational types but were concentrated largely on the high side of the index; almost two-thirds of the youth chose occupations classified as skilled or professional. This pattern is not unusual among American youth; that is, given the widespread cultural values of success and achievement (generally perceived in terms of occupational achievement), American youth reflect their acceptance of these values by expressing relatively high occupational choices.

Table 1. Respondents by Race and Sex, 234 10th Grade Students, Hancock and Noxubee Counties, Mississippi, 1966.

	Hancock	Noxubee	Total
		. . . . . Number	
Whites			
Male	44	39	83
Female	33	30	63
Blacks			
Male	17	19	36
Female	19	33	52
Totals	113	121	234

Table 2. Occupational Interests of 231 Tenth-Grade Students, Hancock and Noxubee Counties, Mississippi, 1966

Occupational Classes (Modified Edwards Scale)	Number	Percent
farm owner	16	6.9
laborer, exc. farm	1	.4
semi-skilled	4	1.7
skilled	64	27.7
military-NCO	9	3.9
owner of business	6	2.6
sales	3	1.3
clerical	33	14.3
military officer	3	1.3
professional and technical	75	32.5
glamour	12	5.2
housewife	5	2.2
Totals*	231	100.0

***Three cases eliminated because of inadequate data.**

Occupational Interests by Sex---Female respondents were interested primarily in traditional female occupations; almost two-thirds listed teacher, nurse, or secretary as their occupational choice (Table 3). One female expressed a preference for farming by listing farm owner as her choice. Almost three fourths of the males listed a skilled or professional occupation as their choice.

Six females listed military service as their choice. An equal number of males listed the same preference but three of these wanted to become commissioned officers, whereas none of the females aspired to that level in the military ranking system.

Occupational Interests by Race---More than one third of the whites expressed preferences for occupations classified as professional but less than one fourth of the blacks aspired to professional careers (Table 3). Only two of the sixteen respondents who expressed a preference for farming were blacks. Forty percent of the blacks selected occupations classified as skilled compared with only 20 percent of the whites.

More blacks than whites expressed an interest in a military career, and all but one of the seven blacks listing that choice chose non-commissioned status.

None of the black female respondents listed housewife as their choice.

Occupational Interests by Residence---Occupational interests of respondents with different residential backgrounds (Table 3) generally agreed with findings of other studies (Kuvlesky and Ohlendorf, 1968; Burchinal, 1961; Haller and Wolff, 1962) and farm youth expressed lower occupational aspirations than non-farm youth. For example, only slightly more than one half of the farm youth chose skilled and professional occupations, whereas about two thirds of the non-farm youth selected occupations in those t categories. Exactly three fourths the youth with a preference f farming were from a fa background but only fifteen p cent of the farm background you chose farming for a career.

Occupational Achievemen

Occupational interests a achievements and an achievem index are shown in Table 4. This i dex is a measure of the relations between interest and achieveme Achievements of the youth did

Table 3. Occupational Interests of 231 Tenth-Grade Students by Race, Sex, and place of Residence, Hancock and Noxubee Counties, Mississippi, 1966

Occupational Classes (Modified Edwards Scale)	Sex		Race		Place of Residence		
	Males (119)	Females (112)	Blacks (87)	Whites (114)	Farm (80)	Rural Nonfarm (56)	Town (95)
					PERCENT		
farm owner	12.6	.9	2.3	9.7	15.0	-	4.2
laborer, exc. farm	-	-	1.1	-	-	-	1.0
semi-skilled	2.5	.9	2.3	1.4	2.5	1.8	1.0
skilled	26.9	28.6	40.2	20.1	28.8	35.7	21.1
military-NCO	2.5	5.4	6.9	2.1	2.5	5.4	4.2
owner of business	3.3	1.8	2.3	2.8	2.5	5.4	1.0
sales	.8	1.8	1.1	1.4	1.2	3.6	-
clerical	1.7	27.7	13.8	14.6	17.5	3.6	17.9
military officer	2.5	-	1.1	1.4	-	3.6	1.0
professional and technical	43.7	20.5	23.0	38.2	23.8	30.4	41.1
glamour	4.2	6.3	5.7	4.9	2.5	10.7	-
housewife		4.5		3.5	3.8	-	2.1

Table 4. Occupational Interests in 1966, Achievements and Occupational Achievement Index in 1972, 131 Youth, Hancock and Noxubee Counties, Mississippi.

Occupational Classes (Modified Edwards Scale)	1966 Interests	1972 Achievements	Occupational Achievement Index*
			NUMBER
farm owner	9	1	11
farm laborer	-	1	-
laborer, non-farm	1	12	1200
semi-skilled	3	19	633
skilled	23	29	126
military-NCO	2	7	350
owner of business	4	7	175
sales	1	4	400
clerical	20	21	105
military officer	1	1	100
professional and technical	56	14	25
glamour	6	-	-
housewife	5	15	300
Total	131	131	

*Occupational Achievement Index scores were computed by the following formula:

$$\frac{\text{Achievement}}{\text{Interest}} \times 100$$

This index is a measure of the relationship between interest and achievement. An index score of 100 represents a one-to-one relationship between interest and achievement; a score of less than 100 means that fewer youth achieved an occupational class than were interested in it.

Table 5. Occupational Achievements of 131 youth, by Sex, Race, and Place of Residence, Hancock and Noxubee Counties, Mississippi, 1972.

Occupational Classes (Modified Edwards Scale)	Sex		Race		Place of Residence, 1966		
	Males (65)	Females (66)	Blacks (36)	Whites (95)	Rural Farm (50)	Nonfarm (36)	Town (45)
					..... PERCENT		
farm owner	1.5	-	-	1.0	-	-	2.2
farm laborer	1.5	-	2.7	-	-	-	2.2
laborer, exc. farm	9.2	9.1	13.5	7.4	8.0	8.3	11.1
semi-skilled	18.5	10.6	18.9	12.7	4.0	19.4	22.2
skilled	33.8	10.6	18.9	23.4	28.0	25.0	13.3
military-NCO	10.7	-	8.1	4.2	10.0	2.7	2.2
owner of business	7.6	3.0	-	7.4	6.0	5.6	4.4
sales	3.1	3.0	2.7	3.2	4.0	-	4.4
clerical	6.1	25.8	13.5	17.0	22.0	11.1	13.3
Military officer	1.5	-	-	1.0	2.0	-	-
professional and technical	6.1	15.2	10.8	10.6	6.0	11.1	15.6
glamour	-	-	-	-	-	-	-
housewife		22.7	10.8	11.7	10.0	16.6	8.8

match the interests they expressed in 1966. For example, only 14 of the 56 youth who expressed an interest in a professional or technical occupation achieved that level by 1972. The ratio of interest to achievement, therefore, was about four to one.

The largest discrepancy between interest and achievement was in the nonfarm laborer category; only one aspired but twelve were in that category in 1972. Youth who achieved a semi-skilled occupation in 1972 greatly outnumbered those who aspired to that level in 1966. Only five female respondents indicated a preference for housewife in 1966 but 15 were classified as such in 1972.

Occupational Achievement by Race, Sex, and Residence--- Occupational achievement of Mississippi youth varied according to race, sex, and place of residence at the time they were first interviewed (Table 5).

1. Respondents classified as *laborers* (farm and others) were about equally divided between males and females. The proportion of blacks in the laborer category was about twice that of whites, but residence appeared to be only a weak differentiating factor for that category.

2. Among *skilled workers,* the ratio of males to females was about three to one. Whites also outnumbered blacks but the difference was small. About one half of the skilled workers were from a town background but the difference between town and rural-nonfarm residents was proportionately small.

3. About two thirds of the *semi-skilled workers* were males. There were more blacks than whites in this category and more than one half of the semi-skilled workers were from a farm background.

4. About 80 percent of the *clerical* workers were females. More than three fourths were whites but proportionately there were about as many blacks as whites. The largest number of clerical workers came from a town background.

5. Probably the most significant finding of the study is that black youth were just as successful as whites in achieving an occupation classified as *professional or technical.* Although there were more than twice as many whites as blacks in that category, the proportions were almost identical. Females were more successful than males in achieving this occupational level and youth with a farm background were more successful in this regard than those with a town or rural nonfarm background.

Summary and Conclusions

Rural and small-town youth in two Mississippi counties were found to be similar to other Southern youth in terms of their occupational interest (Sollie and Lightsey, 1974). That is, they tended to aspire to occupations relatively high on the occupational scale, with almost two thirds expressing a preference for the skilled or professional categories.

Most of the females in the study chose the traditional female occupations of teacher, secretary and nurse. White youth had slightly higher aspirations than black

youth and farm youth had slightly lower aspirations than nonfarm youth.

Occupational achievement fell below occupational aspirations for the youth in this study, a finding that was not unexpected (Sollie and Lightsey, 1974). On the other hand, occupational achievement was measured only four years after the respondents would have finished high school and it is possible that the difference between aspirations and achievements will decrease through time.

This report must be viewed as a limited study of the occupational interests and achievements of some Mississippi youth. Its purpose was to describe their interests and achievements and to compare these according to sex, race and residential background differences. The findings were not significantly different from expectations but further study is needed to document the experiences of Mississippi and other Southern youth as they move into the labor force and attempt to find satisfying jobs.

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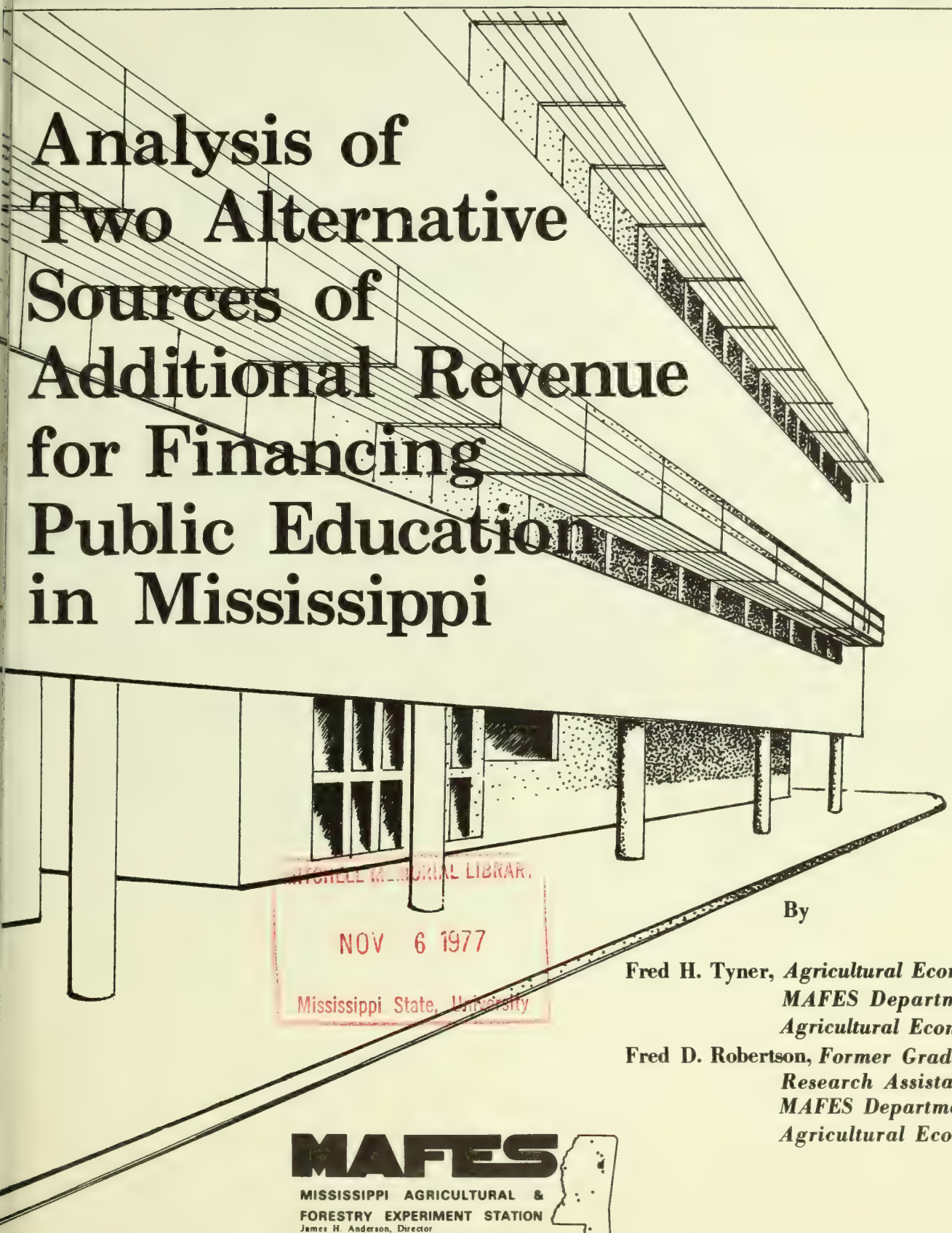
Bulletin 847 March 1977

Analysis of Two Alternative Sources of Additional Revenue for Financing Public Education in Mississippi



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Preface

This is the third in a series of publications on taxation by the Department of Agricultural Economics of MAFES and of the College of Agriculture of Mississippi State University. MAFES Bulletin 819 "A Letter to Mr. and Mrs. Taxpayer" introduced the series by sharing with readers the experiences of other states and the opinions of tax authorities as abstracted from the literature. MAFES Bulletin 820 "Property Assessment Equalization in Mississippi: Effect on County Revenues, Millage Rates, Homestead Exemption and the Cost of Reevaluation" explored the effects of a uniform assessment rate of 30 percent on revenue, millage rate adjustments, and homestead exemption reimbursement in each county. Further, the cost of reevaluation of all real property in the state was estimated. The intent of this publication is to examine another pertinent aspect of the general topic of taxation---that of evaluating alternatives to the property tax as a base for funding public education.

We trust that these efforts will help acquaint the citizens and public officials of Mississippi with the current situation, some of the alternatives available, and the likely effect of these alternatives---to the end that public decisions concerning these complex taxation issues will be made on a better informed basis.

Verner G. Hurt, Head
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Summary

Public education is a complex undertaking that requires a high level of financial support. This support has been a shared responsibility of local, state, and Federal governments, using revenues from various taxes.

As costs have risen and competition for scarce finances has increased, public school administrators and others have looked for additional sources of revenue. The main local tax source for supporting public schools is the property tax---which has been severely criticized because of the variability in local property tax bases and the consequent (presumed) variability in the quality of education offered students.

This study is based on at least partial acceptance of the hypothesis that quality of education and dollar expenditure per pupil are positively related. Further, expenditures per pupil in Mississippi during the period studied (1968-69 through 1971-72) were lower than the average of other southern states---which establishes a minimum "target" level of financing for consideration.

Correlating county data on retail sales and taxable income with assessed values of property indicated that districts with low assessed property values likely would have low gross retail sales and low taxable incomes. Thus, there appears to be little likelihood that educational expenditures can be raised significantly through local funding.

The state sales tax and the state income tax were examined to see how much each tax rate would have to be increased to provide the desired additional revenue. The state sales tax rate of 5.000 percent would have needed to be increased to 5.983, 6.345, 6.491, and 6.202 percent in school years 1968-69 through 1971-72, respectively, to produce the additional revenue. Deriving the same additional revenue from the personal income tax would have required more than a doubling of income tax rates. For example, rates in effect for 1971-72 were 3.000 percent for incomes under $5,000 and 4.000 percent for incomes $5,000 and above. The calculated total rates for that year (to raise the desired additional revenue) were 6.774 percent for incomes under $5,000 and 9.03 percent for incomes $5,000 and over.

Many questions were acknowledged in this study with no attempt made to resolve them due to their subjective nature. Hopefully, the objective nature of the analyses reported will make the results useful to private citizens, legislators, and school officials in future decisions affecting public education in Mississippi.

Analysis of Two Alternative Sources of Additional Revenue For Financing Public Education In Mississippi

INTRODUCTION*

Interest in the development of alternative sources of revenue for local governments has intensified due to spiraling costs and increasing voter resistance to tax increases. This pinch has been felt acutely in the financing of public education.[1] The schools---although supported by local, state, and Federal funds---are caught between rising prices and increasing voter reluctance to approve tax increases.

The main local tax source for the support of public schools is the property tax. Although only 24 percent of the total revenue used to support public education in Mississippi in 1971-72 came from local sources [19] ,[2] 93 percent of this local revenue was derived from property taxes.

By the end of 1972, 52 court suits in 31 states had challenged the legality of the property tax as a means of financing public education [6] . One case, "San Antonio Independent School District V. Rodriguez", has reached the U. S. Supreme Court. The court refused to strike down the use of the property tax in a 5-4 decision, stating that education " . . . is not among the rights afforded explicit protection under our Federal Constitution." However, the majority opinion also noted that "The need is apparent for reform in tax systems which may well have relied too long and too heavily on the local property tax . . . " [23] . In finding no constitutionally guaranteed right to education, the Court reaffirmed the principle that matters relating to taxation and education are reserved for the legislatures of the various states.

The Problem

The basic problem in Mississippi with regard to the use of the property tax for funding public education can be seen by examining expenditure per pupil on an average daily attendance (ADA) basis. Expenditure per pupil for current operating expenses in the highest expenditure district (Jackson Municipal Separate School District) was $825.54 for the school year 1971-72. This was twice that of the Clinton Separate School District, which had the lowest expenditure for the state ($408.61) [14] . Although the Clinton district had a 28 mill property tax levy for current operations while the Jackson district had only a 21.30 mill levy for current operations, the Jackson district's 1971 property assessment was $548,122,218 while Clinton's assessment was only $15,790,108. This difference in assessment allowed the Jackson district to produce $11,584,629 while the Clinton district could produce only $407,285. On a per pupil basis, the property tax for the Jackson district produced $429 while the Clinton district was able to raise only $142.

If the quality of education provided by a school district can be measured by the amount of money per pupil spent by the school district, these differences in expenditure reflect inequities in the financing of public schools. Quantitative evaluation of this assertion is hindered, however, by the fact that educators do not even agree on

**The material in this report is based on an unpublished Masters thesis ("Current Methods of Administering and Financing Mississippi's Public Elementary and Secondary Schools — and Analysis of Alternative Sources of Additional Revenue", Mississippi State University, May 1976) written by Mr. Robertson and directed by Dr. Tyner.*

[1]In this study, the term "public education" refers to public elementary, junior high, and high schools.

[2]Numbers in brackets refer to references cited.

a good measure of quality of education. The measure most often used (achievement test scores) is criticized as measuring only the skills that a student needs in order to attend a four-year college. However, even this criticism is of little consequence to this study, since Mississippi's schools do not report the results of achievement tests (even though all schools are required to administer achievement tests to certain grades each year). Therefore, this study is based on the somewhat tenuous assumption that the quality of a student's education is a reflection of the amount of dollars spent on that student. There can be little doubt that this is true to some degree. However, there is no way to show an exact relationship.

Another aspect of the problem is the question of "equity" in funding of public schools. The example above comparing the Clinton and Jackson districts does not necessarily indicate inequity---unless this issue can be clearly defined in terms of *ability* and *effort as a percent of ability*. The degree to which the responsibility for funding public education lies at the local, state, or Federal level is also a question of equity.

Objectives

The specific objectives of this study were to:

(1) briefly describe the administrative structure of Mississippi's public schools;

(2) enumerate the sources and levels of revenue and expenditure for public education in Mississippi, by school district;

(3) determine a "target" level of expenditure per pupil;

(4) specify alternatives for supplementing current methods of financing public education; and

(5) evaluate these alternatives as means of increasing the level of expenditure per pupil in Mississippi's public schools to the selected target level.

Scope and Limitations

This study briefly reviews the administrative structure, current methods of funding, and current levels of educational finance in Mississippi's public schools. Next, the adequacy of funding (relative to other Southern states) is examined to establish a level of additional funding needed. Alternative sources of additional revenue are considered next, and two---the state sales and income taxes---are analyzed as sources of additional revenue.

These alternative sources are analyzed almost entirely on the basis of their revenue adequacy. Certainly, considerations other than revenue adequacy are important to the selection of alternative revenue sources. However, characteristics such as equity (whether it be equal educational opportunity for the child or equal treatment of taxpayers) are exceedingly difficult to define and to get general agreement on. The roles of educators in specifying criteria for evaluating educational quality---and of legislative bodies in devising regulations and obtaining finances---must be undertaken with a clear understanding of how scarce resources can best be used to achieve the public's goals. Economists and other scientists can provide needed input through objective evaluations of the consequences of alternative actions in the context of resource utilization---where guides are provided by hard evidence and stated majority preferences. Thus, in this study, questions of equality and equity are mentioned only to add greater perspective to the problem. The reader who wishes further reading on these issues is referred to several published studies [3, 18, 22].

Review of Other Studies

Several recently-completed studies have dealt with the problems of alternative methods of financing public elementary and secondary schools. One of the earliest of these was by Paul Cooper [3], who examined the possibilities of equalization of educational expenditures through a state takeover of the financing of local public education. Cooper advocated the retention of control over the schools by the local school districts even though the state would supply most of the money for the operation of the schools.

The Extension Committee on Policy (ECOP) subcommittee on Community Resource Development and Public Affairs published a series of reports dealing with the choices available for financing state and local governments [21, 25, 27]. This series examined the question of which levels of government should provide what services and discussed the characteristics of the property tax, the sales tax and the income tax. The report then considered methods of improving

he tax structure and, finally the natter of how the Federal government should participate in funding tate and local services.

The Washington State University published a series of reports on "Taxes in Washington" [1, 2, 4, 5] n May 1972. These reports examined criteria for judging different axes. They also included a study of he effects of the property tax on economic activity in the state of Washington.

Thomas Hady [6] analyzed alternative methods of financing public education in 1973. He was mainly concerned with questions associated with increased state aid, and concluded that the local income and sales tax bases are likely to be as variable as the property tax base. He evaluated methods of raising the revenue needed for increased state participation according to Walter Heller's standards [8] (i.e., their conformance to generally held ideas of social justice, consistency with economic goals, ease of administration and compliance, and revenue adequacy).

A 1972 study by Perkinson and House [20] examined the trends and characteristics in public school revenue and expenditure in Michigan. Even though this study was primarily an effort to evaluate several changes in Michigan's system of financing public schools, it provides a look at some of the questions that are likely to be faced in an attempt to alter established systems of educational finance.

These and other studies illustrate the widespread nature of problems associated with funding public schools. The intensity and complexity of these problems are influenced by the relative ability of various taxes to raise revenue and by the differential impacts of the various taxes on individual taxpayers. Examination of the above findings, opinions, and general conclusions provides guidance in this study---both in terms of taxes to be considered and in pointing up the difficulty of resolving the noneconomic issues.

ADMINISTRATIVE STRUCTURE

The public education system is highly complex and it seems appropriate to provide some perspective on its organization, to make the ensuing discussion and analyses as relevant as possible. Thus, a brief review of the public school administrative structure at the state and county levels is provided here.

The U. S. Constitution has been interpreted as leaving the operation of public schools to the discretion of the individual states. Correspondingly, Article VIII, Section 201 of the Constitution of 1890, State of Mississippi, states:

> "It shall be the duty of the legislature to encourage by all suitable means, the promotion of intellectual, scientific, moral and agricultural improvements, by establishing a uniform system of free public schools by taxation or otherwise . . . " [9].

The Mississippi Constitution also established the office of State Superintendent of Public Education, the State Board of Education, and provided for a Superintendent of Public Education in each county. The legislature since has enacted statutes that define the duties of these offices and provide the framework for the operation of a " . . . uniform system of free public schools . . . " in the state. The general outline for the administration of Mississippi's public schools is shown in Figure 1. This outline provides a useful guide to the discussion that follows.

State Organization

An extraordinary session of the Mississippi Legislature in 1953 enacted new statutes to govern the operation of the public schools of Mississippi. The first section of the new statutes called for the establishment of a "uniform system" of public schools, and set up the basic framework under which the public schools of Mississippi are administered today. The new statutes provided for the continuance of the State Board of Education, State Superintendent of Education, and County Superintendents of Education as provided for in the Constitution of 1890, and established other administrative positions.

The State Board of Education is made up of three ex-officio members: the State Superintendent of Public Education (Chairman), the Attorney General, and the Secretary of State. The Board adopts the course of study to be used in public schools of the state and regulates all matters arising in the practical administration of the school system not otherwise provided for. It establishes, under legislative authority, rules and regulations for the purchase and operation of county-owned transportation equipment and disburses state funds appropriated for current operation of the public schools.

The State Superintendent of Public Education is the chief school officer of the state. His duties include supervising the public schools, advising the county superintendents on all matters involving

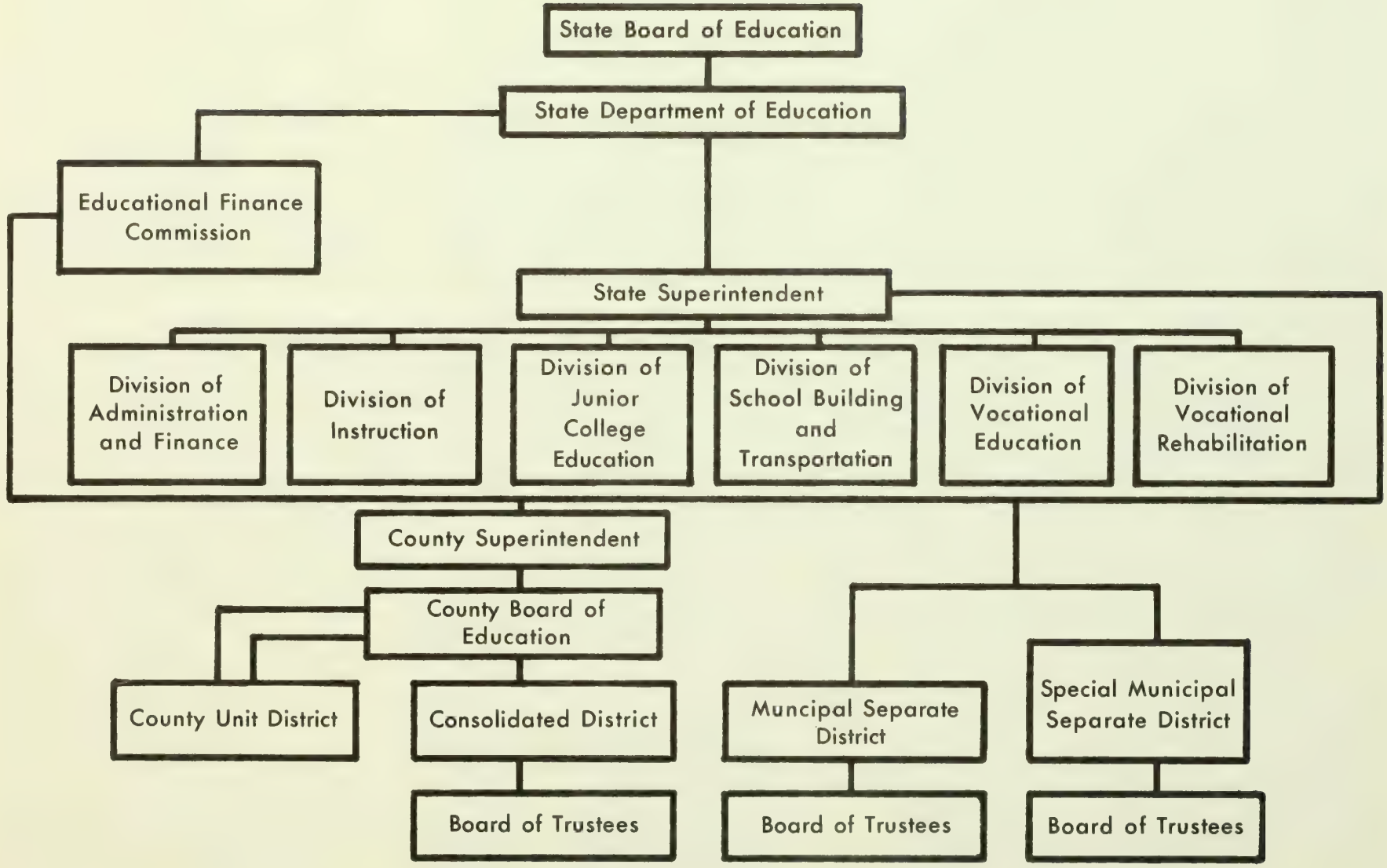


Figure 1. Mississippi's public school system organizational structure.

ıe welfare of the schools, approv-
ıg all school budgets, and organiz-
ıg and supervising the State
)epartment of Education.

The State Department of Educa-
ion is organized into six divisions
vith a director for each: (1) Admin-
stration and Finance, (2) Instruc-
ion, (3) Junior College Education,
4) School Building Service and
Transportation, (5) Vocational Ed-
ıcation, and (6) Vocational Reha-
)ilitation.

The extraordinary legislative
ession of 1953 also set up the State
Educational Finance Commission.
The legislation declared that:

> ". . . the burden of providing equality of educational opportunity can no longer be borne entirely by the local taxing units; and therefore that a program of state aid therefore should be instituted. The legislature, therefore, declares and determines that the maintenance of the uniform system of free public schools . . . is joint responsibility of the State of Mississippi and the local taxing units thereof." [10]

In accordance with this intent, the legislature established the "State Public School Building Fund" which places the financial resources of the State behind public school construction in the individual school districts. This fund is administered by the State Educational Finance Commission. In addition to disbursing funds appropriated by the legislature for constructing, equipping and repairing school buildings, the Finance Commission also approves plans for the location and construction of elementary and secondary school buildings, and approves plans for reorganization of all school districts.

County Organization

The County Superintendent of Education is the Executive Officer for the county. He is the director of all schools in the county except for the municipal separate school districts. The duties of the County Superintendent include: signing contracts with each superintendent, principal, and teacher under his supervision; examining annual and monthly reports submitted to him by principals and teachers, and making certain reports to the State Department of Education; issuing pay certificates for school funds; and enforcing courses of study provided by law, or by the rules and regulations of the State Board of Education.

Each county, unless it is completely encompassed in a municipal separate school district, also has a County Board of Education.[3] This board has jurisdiction over all schools in the county except municipal separate school districts. Some specific duties of the county school board are: organizing school districts and transportation routes; acting as a central purchasing agency for the school districts; and fixing the dates and lengths of the school terms.

Under the laws enacted by the 1953 session of the Mississippi Legislature, each county is organized into one or more of three types of school districts: municipal separate, county-wide, and consolidated. *A municipal separate school district* includes all territory in the corporate limits of that municipality. (In some cases the district may include territory outside the municipality. If this added territory contains 25 percent or more of the educable children in the district, the district is called a *special* municipal separate school district.) The administration of the two types (municipal separate and special municipal separate) are identical except for the method of electing the board of trustees. There are 54 municipal separate school districts in the state.

All separate school districts operate independently of the county in which they are located, dealing directly with the State Department of Education rather than with the county superintendent. Separate school districts do not participate in or pay taxes to county school funds. If the separate school district embraces all the territory of a county, there is no county school district and the county superintendent is appointed by the separate school district and acts as superintendent of the district.

A county-wide district embraces all the territory of a county exclusive of municipal separate districts. The county Board of Education serves as the board of trustees of the district and appoints a board of trustees for each attendance center in the district. These local trustees serve primarily as guardians of their respective attendance centers. There are 68 county-wide districts in the state.

The consolidated district is composed of less than the entire county and has its own board of trustees who are elected by popular vote. The authority and responsibilities of the board include: erecting and maintaining school facilities; supervising the curriculum; and (subject to the approval of the County Board of Education) selecting superintendents, principals, and teachers. This type of district does not levy a district tax, but obtains the tax contribution to the minimum program from a county-wide levy. The consolidated district may have a tax levy to supplement the minimum program, provided the

[3] *The County Superintendent is executive secretary of the county Board, but has no vote in its decisions.*

combined special and county-wide levy does not exceed 25 mills. There are 28 consolidated districts in the state.

The 150 Mississippi Public School Districts in the 1971-72 school year are shown in Figure 2 and listed in Appendix Table 1.

CURRENT METHODS AND LEVELS OF FUNDING

This section examines the amounts of revenue and the programs used to provide this revenue to Mississippi's public schools for the school years 1962-63 through 1971-72. Then, the expenditures of the public school districts are examined to determine the financial support afforded on a per-pupil basis.

Revenue: Sources and Amounts

The revenue figures used in this study were obtained from annual reports published by the Mississippi Department of Education [11, 12, 17]. The revenue receipts for each of the 150 districts included are presented in total and by source (i.e., local, state, or federal).

Total

Total annual revenue for Mississippi's public schools increased each year except for the 1971-72 school year (Table 1). However, the increase in 1969-70 was only $57,000, reflecting the effects of the drastic decrease in ADA that year (transfers of students to private schools) and a resultant decrease in Federal revenue. The decrease in total revenue shown in 1971-72 also was caused by a decrease in Federal revenue resulting from a decrease in ADA for the State's public schools. Total revenue increased by approximately $187,000,000 over the 10 years.

Total revenue by school district for five years (1967-68 through 1971-72) is shown in Appendix Table 2.

Local

The "Annual Report of the State Superintendent of Public Education" lists the following sources of local revenue: (1) ad valorem tax fund, (2) mineral lease tax, (3) other taxes, (4) tuition and transportation from patrons, (5) sixteenth section income, and (6) other local sources. The property tax (revenue at the local level) accounted for over 90 percent of total local revenues. In 1971-72, local revenue was $82,732,000---almost twice that of the 1962-63 school year (Table 1).

State

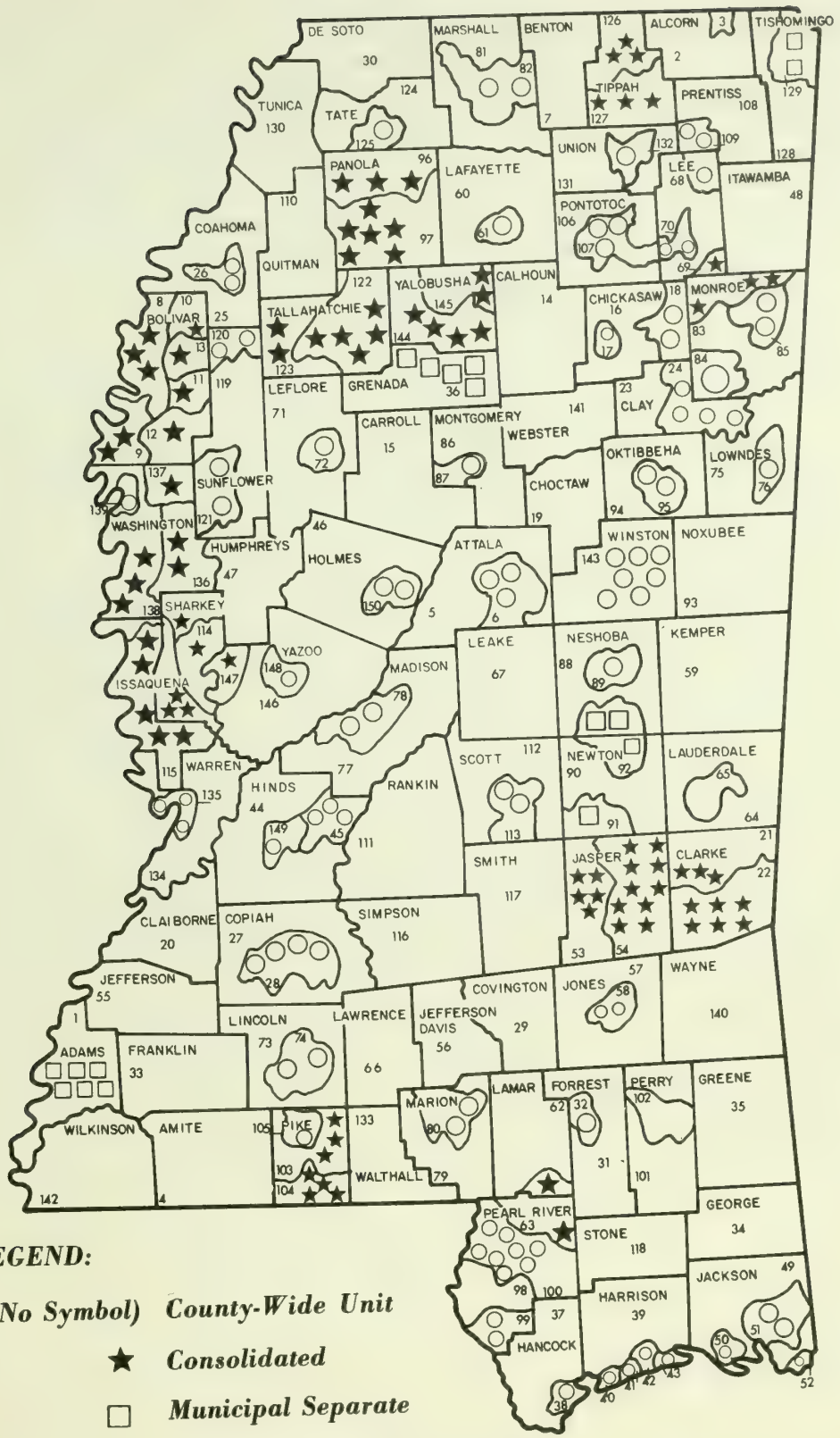
For the 1971-72 school year the 150 local school districts received $168,548,139 from the state of Mississippi---more than double the

Table 1. Revenue for Mississippi's 150 public school districts, by source, 1962-63 through 1971-72.

School Year	Source						
	Local	State	Federal	Total*	Local	State	Federal
	-----(1,000)-----				-----percent-----		
1962-63	$46,632	$80,426	$3,298	$130,357	35.8	61.7	2.5
1963-64	49,750	86,167	3,432	139,349	35.7	61.8	2.5
1964-65	53,465	96,061	4,255	153,781	34.8	62.5	2.8
1965-66	58,676	95,644	23,553	177,873	33.0	53.8	13.2
1966-67	62,346	105,842	27,716	195,905	31.8	54.0	14.1
1967-68	66,141	107,449	38,324	211,913	31.2	50.7	18.1
1968-69	72,896	149,609	50,314	272,819	26.7	54.8	18.4
1969-70	75,793	151,716	45,367	272,876	27.8	55.6	16.6
1970-71	77,382	157,398	86,044	320,824	24.1	49.1	26.8
1971-72	82,732	168,548	65,935	317,215	26.1	53.1	20.8

***Detail may not add to total due to rounding.**

Source: Ten Year Trend Study [17] and Annual Report of the State Superintendent of Public Education [11, 12].



LEGEND:

(No Symbol) ***County-Wide Unit***

★ ***Consolidated***

□ ***Municipal Separate***

○ ***Special Municipal Separate***

Figure 2. Mississippi's public school districts, 1971-72. (District numbers correspond to those in Appendix Table 1.)

1962-63 figure of $80,426,000 (Table 1). However, State revenue actually comprised a smaller percentage of total revenue in 1971-72 than it did in 1962-63. The State revenue was provided to the local districts through the following channels: (1) Per Capita and Minimum Education programs; (2) Vocational funds; (3) Educational Finance Commission funds; (4) Severance Tax Refund; (5) Homestead Exemption fund; (6) Chickasaw funds; (7) Driver's Education fund; and (8) Adult and other funds.

Federal

Federal revenue in 1971-72 was almost 20 times that of 1962-63 (Table 1). The increased importance of Federal revenue to Mississippi's public schools is evident from the fact that it accounted for only 2.52% of total revenue in 1962-63 and had increased to 20.78% of total revenue by 1971-72.

State Funding Programs

The Minimum Foundation Program (through which all state aid is channeled to the local districts) receives money from two separate funds: (1) Minimum Program Fund and (2) Common School Fund [15]. The Minimum Program Fund is a joint state and local effort, with the local share based on an index of financial ability. The Common School Fund is a flat grant by the state to the local district, based on the proportion of the total number of the state's school-age children that reside in the district.

Minimum Program Fund

The state's share of the Minimum Program Fund is the total cost of the Fund minus the local share. However, the state share must be at least 40 percent of the total. Outline formulas for determining the local, state, and total costs of the program are:

I. Total cost of the Minimum Program Fund =

County Administration
+ Local Administration supplement
+ Teachers' salaries
+ Transportation
+ Other costs
+ Incentive grant[4]
+ The employer's part of Social Security and Retirement

II. Local Contribution toward cost of the Minimum Program Fund =

Ad Valorem tax funds
+ Severence tax funds

III. State's contribution toward cost of the Minimum Program =

Total cost (I) minus Local contribution (II).

Total Cost.

Each county receives an "administrative expenses" allotment that is used to pay the County Superintendent's salary and other expenses of the Superintendent's office. The county receives $15,000 plus $25 for each teacher unit[5] above 50 units, up to a maximum of $20,000. In the event a county is completely encompassed in a municipal separate district, this allotment is given to the district. In addition, each school district is alloted $150 per year for each teacher unit for "local administration supplements" to salaries of local superintendents and principals, and (under certain conditions) teachers' salaries.

"Teachers' salaries" under the Minimum Program are paid according to a statewide schedule, based on the type of license held and the teacher's experience. The "transportation" allotment is based on a formula in which previous costs and the geographic density of pupils actually transported are the determining factors. Each school district is allotted $600 per teacher unit for "other costs". This money is used for instructional materials, maintenance and operation of the school plant, and for advanced training of teachers.

Since 1968, "incentive grant funds" have been allotted to a district based on local effort. Local effort is measured according to a formula based on the local millage rate. The allotment for the "employer's part of the Social Security and Retirement" is the amount actually paid by the county.

Local Contribution.

Local monies for contribution to the Minimum Program Fund come from the ad valorem tax and the severance tax. The required local ad valorem tax contribution of a county or municipal separate school district is determined by the State Department of Education in accordance with the following index of financial ability (which is set by law):

Index of financial ability =

[(.245152) x (county's percent of the total assessed valuation of public utilities in the state)
+ (.044144) x (county's percent of State total of motor vehicle license receipts)
+ (.065110) x (county's percent of State total personal income taxes paid in the state)

[4]The Incentive Grant was added in 1968-69 school year. In 1973-74 an allowance for district administration was added and the Incentive Grant was replaced by an allowance for supportive services.

[5]One teacher unit equals 27 students. In addition, one-half T.U. is allowed the district for each approved vocational teacher and .6 T.U. is added for each special education teacher.

+ (.222936) x (county's percent of State total gainfully employed, non-farm, non-government workers)
+ (.282970) x (county's percent of the retail sales tax paid in the state)] ÷ 100

This index is multiplied by the statutory total ($16,000,000 in the 1971-72 school year) to determine the amount to be provided by the local districts.

State Contribution.

The State's contribution is the difference between the total cost (I) and the contribution of each county and municipal separate district (II). In the event that state appropriations are insufficient, all items in the cost of the program are reduced on a percentage basis to make the state's contribution equal to the state appropriation.

The State Department of Education uses actual records of teacher training and experience, attendance, transportation, and other cost factors in computing the cost of the program. Tentative notice of the amount of funds it must contribute for the coming year and the amount the state will contribute is given to each county and separate district on June 1. Final notice is given on January 15.

Common School Fund

The Common School Fund, first established in 1890, is a flat grant from the state provided to the local school district for its unrestricted use. The amount received by the district depends on the proportion of the state's school age children that are in the district. This fund provided about $7 per census child or about 2.6% of total state aid in the 1971-72 school year. The Minimum Program Fund and the Common School Fund combined make up the state's part of the Minimum Foundation Program.

Expenditure Per Pupil

Expenditure per pupil was determined by dividing the current expenditures for each district by average daily attendance (ADA). ADA for a district is calculated as:

ADA = Attendance ÷ Length of term

Where: Attendance = the sum, over the school year, of daily attendance
and
Length of term = minimum number of days required by law or actual number of days school is in session---whichever is greater.

Table 2. Public school attendance and private school enrollment in Mississippi, 1962-63 through 1971-72.

School year	Type of school	
	Public	Non-public
	ADA*	Enrollment**
1962-63	515,244.6	18,633
1963-64	527,143.0	19,396
1964-65	530,884.0	19,398
1965-66	536,201.9	22,217
1966-67	528,681.7	22,004
1967-68	539,615.2	24,227
1968-69	541,975.7	24,119
1969-70	524,622.9	46,981
1970-71	495,491.0	65,707
1971-72	491,402.4	66,667

***ADA = Average Daily Attendance**
****Total enrollment—including State supported and Indian schools.**
SOURCE: Statistics for Mississippi's Public Schools; State Department of Education [16].

Table 2 presents the ADA for the state public schools and the total enrollment for non-public schools. (No adjustment was made for the length of term of the non-public schools.) There was a steady rise in ADA for the State's public schools until the 1969-70 school year, when private school enrollment almost doubled. This shift in enrollment influences per-pupil expenditure importantly, as will be shown later.

Expenditure data used in this study were obtained from the seven major current accounts of the school Budget and Finance Report: (1) administration; (2) instruction; (3) transportation; (4) operation of school plant; (5) maintenance of school plant; (6) fixed charges; and (7) auxiliary charges.[6]

Per-pupil expenditures in each

[6]*Source: State Department of Education*

account are unweighted arithmetic averages, obtained by dividing the total ADA into total expenditures in each account. Expenditures per pupil in 1968-69 through 1971-72 were $431.54, $459.80, $578.48, and $585.03, respectively. Total annual current expenditure per pupil for each school district in Mississippi for 1967-68 through 1971-72 is given in Appendix Table 3.

POTENTIAL FOR ADDITIONAL LOCAL REVENUE

The possibility of raising additional revenue at the local level is considered in this section, following a general discussion of the difficulty involved in selecting the "best" tax.

Difficulty of Evaluating Taxes

State and local governments levy---in addition to the property tax---sales, income, luxury, and severance taxes. A detailed examination of these taxes is beyond the scope of this report. However, a brief discussion of the main characteristics of the property, sales, and income taxes is in order, to provide some perspective on the possibility of supplementing property tax revenue with revenue from either the income tax or the sales tax.

Evaluation of taxes has gone on for as long as taxes have been used as a means of raising revenues for government. In 1776, Adam Smith set forth four principles for the evaluation of taxes: equality, certainty, convenience of payment, and economy in collection [24]. These principles have been widely used every since. In 1964, Walter Heller provided a modern restatement of these principles, saying that taxes can be evaluated on the basis of their conformance with our ideas of "social justice, consistency with economic goals, ease of administration and compliance, and revenue adequacy" [8].

These principles have been much discussed, without any one of the three taxes (property, sales, or income) showing a clear advantage over the others. However, it is generally agreed that state income taxes are the most progressive and that the sales tax is regressive. The property tax correlates poorly with incomes of the people on whom it is levied. Income and sales taxes are more income elastic than is the property tax. Hady [6] points out that this relatively high income elasticity of the income and sales taxes can be both an advantage and a disadvantage. (An elastic tax is not stable---it can be very helpful when a state's economy is expanding or can present problems when the economy is contracting).

Criticism of the property tax is perhaps best summed up by Ronald Welch:

> "If California is typical of the nation, the property tax is the most unpopular of all major taxes now employed in the United States. It is under attack from all sides. It is denounced by welfare economists, . . . by businessmen, . . . by farmers, . . . by the aged, . . . by guardians of the law, . . . by students of government, . . . " [22].

In the face of such criticism, one might wonder why the property tax continues to exist. A paramount reason is the difficulty of replacing the revenue produced by the property tax. In 1967, the property tax provided 87 percent of the total tax revenue of local governments in the United States [1]. As stated earlier, the property tax provided over 90 percent of the *local* revenue for the public school districts in Mississippi. Another reason for the continued reliance on the property tax is the lack of unanimous agreement on an alternative---both income and sales taxes have received their share of criticism.

No one of the three taxes seems to be clearly the most compatible with established economic goals such as price stability, full employment, and optimal allocation of resources. Readers desiring a more detailed examination of the subject are referred to any of numerous studies published on this topic (e. g., Hady [6], Wyckoff [27], and Florea [4]).

Relations Among Taxes at the Local Level

Sales and income taxes together produced over 65 percent of the total General Fund receipts in Mississippi for the fiscal year ending June 30, 1972. Since no other single tax produced over five and one-half percent of total General Fund receipts, sales and income taxes appear to be the only taxes with the potential to supplement the property tax in increasing support of public education.

Potentials of sales and income taxes as instruments to be used at the county level were examined where appropriate data could be obtained. In order to determine the ability of either the sales tax or the

income tax to provide additional local revenue, the tax bases for each were correlated with the property tax base.

Since no income tax data were available for municipal separate or consolidated districts, the first correlation analysis of the three taxes was limited to the 33 counties with a single school district. Variables correlated were retail sales, taxable income, and assessed value of property.

A second correlation used only the assessed value of property and gross sales. This correlation included all county unit and municipal separate school districts. There was no way to adjust gross sales for the actual amount of sales in consolidated districts. This caused the gross sales to be overstated in counties with both county unit and consolidated districts. However, it was judged that this overstatement was likely to be small and would be more than outweighed by the greater reliability that the additional number (120 total) of districts provided.

A high degree of positive correlation was found in both analyses. Both sales and income taxes were found to have coefficients of .92 when correlated with the assessed value of property in the 33 counties with a single school district. In the second correlation (assessed value of property versus gross sales in 120 school districts), the correlation coefficient was .95. These high degrees of correlation indicate that districts with a low assessed value of property are likely to have low gross retail sales and taxable income. There seems to be little likelihood that educational expenditures can be raised significantly through *local* funding alone.

STATE SALES AND INCOME TAXES AS SOURCES OF ADDITIONAL REVENUE

The high positive correlation of county property tax bases with both sales tax and income tax collections rules out the possibility that counties with low property tax bases and low per pupil expenditures could use the sales and income taxes as effective revenue producing supplements. Thus, the use of sales and income taxes at the state level are examined here. There are three major questions: (1) How much additional revenue would be needed to raise expenditure per pupil in Mississippi to the average of all Southern states? (2) How much would the sales tax have to be increased to raise this revenue? (3) How much would the income tax have to be increased to raise this revenue?

Additional Revenue Needed

The amount of additional revenue needed was ascertained by comparing expenditure per pupil in Mississippi with the average expenditure per pupil in all southern states[7] for 1968-69 through 1971-72. Mississippi was found to have lower expenditures per pupil for each of the four years. The amount that Mississippi's expenditure per pupil would have to be increased to equal the average expenditure for the other southern states is shown in Table 3. These figures were multiplied by the state ADA for each of the four years to obtain the needed increases in total revenue.

Table 3. Estimated additional revenue needed to raise Mississippi's expenditure per pupil to average for all southern states, 1968-69 through 1971-72.

Item	Year			
	1968-69	1969-70	1970-71	1971-72
	(dollars)			
Increase in expenditure per pupil	$66	$107	$136	$127
Additional revenue needed	$35,770,350	$56,134,661	$67,386,776	$62,408,054

SOURCE: [16, 17]

Required Sales Tax Increase

The next step was to determine how much increase in the sales tax rate would be needed for the sales tax to produce the required additional revenue. First, it is important to recognize that, although the *stated* sales tax rate is five percent, the *effective* sales tax rate (ratio of sales tax collected to gross sales)

[7]*Data published by the Mississippi State Department of Education* [16].

was only about three percent in the four years analyzed. Thus, it is necessary to calculate an increase in terms of the "effective" rate. The procedure is described below, using 1968-69 as an example.

$$\text{Needed increase in effective rate} = \frac{\text{Additional revenue needed}}{\text{gross sales}} = \frac{\$35,770,350}{\$6,226,619,145} = .00574$$

$$\text{"Effectiveness ratio" for 1968-69} = \frac{\text{sales tax collected}}{\text{gross sales x stated rate}} = .58384$$

$$\text{Needed increase in stated rate} = \frac{\text{Needed increase in effective rate}}{\text{effectiveness ratio}} = \frac{.00574}{.58384} = .00983$$

This result shows that a stated sales tax rate of 5.983 percent (rather than 5 percent) in 1968-69 would have produced the additional revenue required to bring expenditure per pupil up to the average of all southern states in that year. The needed increases in the effective and stated sales tax rates for 1968-69 through 1971-72 are shown in Table 4.

Table 4. Estimated effective and stated sales tax rates to provide additional revenue for raising Mississippi's expenditure per pupil to the average for all southern states, 1968-69 through 1971-72.

Item	Year			
	1968-69	1969-70	1970-71	1971-72
	(percent)			
Effective rate				
Actual	2.860	2.980	3.320	3.260
Increase needed	.574	.822	.994	.774
Total	3.434	3.802	4.314	4.034
Stated rate				
Actual	5.000	5.000	5.000	5.000
Increase needed	.983	1.345	1.491	1.202
Total	5.983	6.345	6.491	6.202

Required Income Tax Increase

The Mississippi income tax has a split rate structure (three percent on incomes under $5,000 and four percent on incomes $5,000 and higher). Therefore, it was necessary to calculate two rates for each year. To eliminate any subjective judgements about where the greatest burden for the increased revenue would be placed, it was decided that the additional rates should be in the same ratio that existed for the actual rates.[8] The rate increases were calculated from the following formulas:

$$X_2 = \frac{\text{needed revenue}}{75I_1 + I_2}$$

$$X_1 = .75X_2$$

where: X_1 = the additional rate for incomes under $5,000
X_2 = the additional rate for incomes of $5,000 and over
I_1 = Mississippi's total amount of taxable income taxed at 3%.
I_2 = Mississippi's total amount of taxable income taxed at 4%.

These equations were solved for each year under study. The additional rates would result in a total rate approximately *double* the current rate (Table 5). This raises serious questions about political feasibility. Again, the answers to such questions are beyond the scope of this study.

[8] *The rate on incomes under $5,000 should be three-fourths of the rate for incomes of $5,000 and over.*

Table 5. Estimated income tax rates to provide additional revenue for raising Mississippi's expenditure per pupil to the average for all southern states, 1968-69 through 1971-72.

Item	Year			
	1968-69	1969-70	1970-71	1971-72
	(percent)			
Income under $5,000				
Actual rate	3.000	3.000	3.000	3.000
Increase needed	3.131	5.075	5.037	3.774
Total	6.131	8.075	8.037	6.774
Income $5,000 and higher				
Actual rate	4.000	4.000	4.000	4.000
Increase needed	4.174	6.767	6.716	5.032
Total	8.174	10.767	10.716	9.032

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Appendix Table 1. Mississippi public school districts by type and home county, 1971-72.

Number	School District	Type of District	Home County
1	Natchez-Adams	Special Municipal Separate	Adams
2	Alcorn	County Unit	Alcorn
3	Corinth	Municipal Separate	
4	Amite	County Unit	Amite
5	Attala	County Unit	Attala
6	Kosciusko	Municipal Separate	
7	Benton	County Unit	Benton
8	Bolivar #1	Consolidated	Bolivar
9	Bolivar #2	Consolidated	
10	Bolivar #3	Consolidated	
11	Bolivar #4	Consolidated	
12	Bolivar #5	Consolidated	
13	Bolivar #6	Consolidated	
14	Calhoun	County Unit	Calhoun
15	Carroll	County Unit	Carroll
16	Chickasaw	County Unit	Chickasaw
17	Houston	Municipal Separate	
18	Okolona	Municipal Separate	
19	Choctaw	County Unit	Choctaw
20	Claiborne	County Unit	Claiborne
21	Enterprise	Consolidated	Clarke
22	Quitman	Consolidated	
23	Clay	County Unit	Clay
24	West Point	Municipal Separate	
25	Coahoma	County Unit	Coahoma
26	Clarksdale	Municipal Separate	
27	Copiah	County Unit	Copiah
28	Hazlehurst	Municipal Separate	
29	Covington	County Unit	Covington
30	DeSoto	County Unit	DeSoto
31	Forrest	County Unit	Forrest
32	Hattiesburg	Municipal Separate	
33	Franklin	County Unit	Franklin
34	George	County Unit	George
35	Greene	County Unit	Greene
36	Grenada	Special Municipal Separate	Grenada
37	Hancock	County Unit	Hancock
38	Bay St. Louis	Municipal Separate	
39	Harrison	County Unit	Harrison
40	Pass Christian	Municipal Separate	
41	Long Beach	Municipal Separate	
42	Gulfport	Municipal Separate	
43	Biloxi	Municipal Separate	
44	Hinds	County Unit	Hinds

(Continued)

Appendix Table 1. Mississippi public school districts by type and home county, 1971-72, continued

Number	School District	Type of District	Home County
45	Jackson Separate	Municipal Separate	
149	Clinton	Municipal Separate	
46	Holmes	County Unit	Holmes
150	Durant	Municipal Separate	
47	Humphreys	County Unit	Humphreys
	None	None	Issaquena
48	Ittawamba	County Unit	Ittawamba
49	Jackson	County Unit	Jackson
50	Ocean Springs	Municipal Separate	
51	Moss Point	Municipal Separate	
52	Pascagoula	Municipal Separate	
53	West Jasper	Consolidated	Jasper
54	East Jasper	Consolidated	
55	Jefferson	County Unit	Jefferson
56	Jefferson Davis	County Unit	Jefferson Davis
57	Jones	County Unit	Jones
58	Laurel	Municipal Separate	
59	Kemper	County Unit	Kemper
60	Lafayette	County Unit	Lafayette
61	Oxford	Municipal Separate	
62	Lamar	County Unit	Lamar
63	Lumberton Line	Consolidated	
64	Lauderdale	County Unit	Lauderdale
65	Meridian	Municipal Separate	
66	Lawrence	County Unit	Lawrence
67	Leake	County Unit	Leake
68	Lee	County Unit	Lee
69	Nettleton Line	Consolidated	
70	Tupelo	Municipal Separate	
71	Leflore	County Unit	Leflore
72	Greenwood	Municipal Separate	
73	Lincoln	County Unit	Lincoln
74	Brookhaven	Municipal Separate	
75	Lowndes	County Unit	Lowndes
76	Columbus	Municipal Separate	
77	Madison	County Unit	Madison
78	Canton	Municipal Separate	
79	Marion	County Unit	Marion
80	Columbia	Municipal Separate	
81	Marshall	County Unit	Marshall
82	Holly Springs	Municipal Separate	
83	Monroe	County Unit	Monroe
84	Aberdeen	Municipal Separate	
85	Amory	Municipal Separate	

(Continued)

Appendix Table 1. Mississippi public school districts by type and home county, 1971-72, continued

Number	School District	Type of District	Home County
86	Montgomery	County Unit	Montgomery
87	Winona	Municipal Separate	
88	Neshoba	County Unit	Neshoba
89	Philadelphia	Municipal Separate	
90	Newton	County Unit	Newton
91	Newton	Special Municipal Separate	
92	Union	Special Municipal Separate	
93	Noxubee	County Unit	Noxubee
94	Oktibbeha	County Unit	Oktibbeha
95	Starkville	Municipal Separate	
96	North Panola	Consolidated	Panola
97	South Panola	Consolidated	
98	Pearl River	County Unit	Pearl River
99	Picayune	Municipal Separate	
100	Poplarville	Municipal Separate	
101	Perry	County Unit	Perry
102	Richton	Municipal Separate	
103	North Pike	Consolidated	Pike
104	South Pike	Consolidated	
105	McComb	Municipal Separate	
106	Pontotoc	County Unit	Pontotoc
107	Pontotoc	Municipal Separate	
108	Prentiss	County Unit	Prentiss
109	Baldwyn	Municipal Separate	
110	Quitman	County Unit	Quitman
111	Rankin	County Unit	Rankin
112	Scott	County Unit	Scott
113	Forest	Municipal Separate	
114	Anguilla Line	Consolidated	Sharkey
115	Sharkey-Issaquena	Consolidated	
116	Simpson	County Unit	Simpson
117	Smith	County Unit	Smith
118	Stone	County Unit	Stone
119	Sunflower	County Unit	Sunflower
120	Drew	Municipal Separate	
121	Indianola	Municipal Separate	
122	East Tallahatchie	Consolidated	Tallahatchie
123	West Tallahatchie	Consolidated	
124	Tate	County Unit	Tate
125	Senatobia	Municipal Separate	
126	North Tippah	Consolidated	Tippah
127	South Tippah	Consolidated	
128	Tishomingo	County Unit	Tishomingo
129	Iuka	Municipal Separate	

(Continued)

Appendix Table 1. Mississippi public school districts by type and home county, 1971-72, continued

Number	School District	Type of District	Home County
130	Tunica	County Unit	Tunica
131	Union	County Unit	Union
132	New Albany	Municipal Separate	
133	Walthall	County Unit	Walthall
134	Warren	County Unit	Warren
135	Vicksburg	Municipal Separate	
136	Hollandale	Consolidated	Washington
137	Leland	Consolidated	
138	Western Line	Consolidated	
139	Greenville	Municipal Separate	
140	Wayne	County Unit	Wayne
141	Webster	County Unit	Webster
142	Wilkinson	County Unit	Wilkinson
143	Louisville	Municipal Separate	Winston
144	Coffeeville	Consolidated	Yalobusha
145	Water Valley	Consolidated	
146	Yazoo	County Unit	Yazoo
147	Holly Bluff	Consolidated	
148	Yazoo	Municipal Separate	
149	(see Hinds Co.)		
150	(see Hinds Co.)		

Source: Annual Report and Recommendations of the the State Superintendent of Education [11].

Appendix Table 2. Total public school revenue by school district, Mississippi, 1967-68 through 1971-72

County	District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
		(Dollars)				
Adams	Natchez-Adams	4,592,288	5,587,978	5,361,040	5,563,347	5,321,213
Alcorn	Alcorn	1,032,396	1,762,756	1,570,579	2,312,985	2,152,581
Alcorn	Corinth	1,018,335	1,282,872	1,223,460	1,263,578	1,267,954
Amite	Amite	1,758,704	1,796,009	1,882,965	1,755,285	1,627,467
Attala	Attala	1,091,754	1,488,320	1,404,858	1,540,015	1,456,756
Attala	Kosciusko	924,821	981,883	987,221	1,463,741	1,660,152
Benton	Benton	722,133	901,263	953,587	1,048,137	993,345
Bolivar	Bolivar #1	1,100,302	1,398,254	1,291,658	1,815,940	1,547,526
Bolivar	Bolivar #2	581,295	858,173	813,235	952,947	781,697
Bolivar	Bolivar #3	886,961	1,040,886	1,091,606	1,212,546	1,052,964
Bolivar	Bolivar #4	1,798,391	2,493,757	2,394,806	2,584,859	2,500,000
Bolivar	Bolivar #5	839,528	1,094,117	761,980	937,174	982,195
Bolivar	Bolivar #6	512,883	856,314	748,682	898,522	821,531
Calhoun	Calhoun	1,449,917	1,810,012	1,531,796	1,742,824	1,795,336
Carroll	Carroll	957,864	1,331,368	1,180,816	1,476,931	1,246,273
Chickasaw	Chickasaw	651,759	795,088	528,589	539,070	635,896
Chickasaw	Houston	437,787	656,450	889,454	1,226,109	1,176,460
Chickasaw	Okolona	595,915	692,647	603,880	791,309	896,102
Choctaw	Choctaw	685,778	733,042	759,732	1,122,511	1,252,076
Claiborne	Claiborne	1,152,754	1,525,595	1,492,101	1,550,681	1,534,566
Clarke	Enterprise	383,761	503,182	471,440	489,732	539,291
Clarke	Quitman	1,160,882	1,440,137	1,467,532	1,533,685	1,423,515
Clay	Clay	424,121	494,996	506,313	534,546	502,271
Clay	West Point	1,411,091	1,796,409	1,731,941	1,854,306	1,885,198
Coahoma	Coahoma	2,271,267	2,517,546	2,640,402	3,401,744	2,904,479
Coahoma	Clarksdale	2,038,877	2,436,466	2,392,862	2,902,576	3,089,408
Copiah	Copiah	1,026,671	1,263,317	1,270,776	1,864,700	1,827,181
Copiah	Hazlehurst	898,036	1,093,123	1,215,796	1,666,691	1,395,310
Covington	Covington	1,306,665	1,751,492	1,909,474	2,016,274	1,974,228
DeSoto	DeSoto	3,037,055	4,100,759	4,267,029	4,987,760	6,061,821
Forrest	Forrest	1,571,225	1,913,344	1,922,254	2,109,646	2,339,367
Forrest	Hattiesburg	3,163,650	3,904,808	3,764,215	4,249,874	4,665,238
Franklin	Franklin	887,491	1,023,153	1,265,248	1,679,209	1,307,247
George	George	1,023,235	1,351,048	1,399,368	1,755,893	1,691,526
Greene	Greene	996,889	1,233,268	1,162,516	1,342,568	1,296,339
Grenada	Grenada	1,648,052	2,167,485	2,055,119	2,416,873	2,242,478
Hancock	Hancock	683,650	784,513	952,706	1,048,430	1,031,413
Hancock	Bay St. Louis	1,092,003	971,356	965,761	1,325,185	1,314,483
Harrison	Harrison	2,174,265	2,984,738	4,874,708	4,026,856	4,208,772
Harrison	Biloxi	3,541,099	4,765,098	4,893,230	5,148,386	5,620,741
Harrison	Gulfport	3,453,033	4,253,930	4,604,630	4,964,806	4,756,999
Harrison	Long Beach	1,063,938	1,420,315	1,538,156	1,805,567	1,880,004
Harrison	Pass Christian	1,010,312	941,695	969,380	1,035,537	1,074,759
Hinds	Hinds	4,106,243	6,298,393	6,128,918	6,389,678	6,488,546
Hinds	Jackson Separate	15,755,051	11,412,362	10,050,809	13,426,347	12,096,725
Holmes	Holmes	2,430,647	3,315,476	3,101,959	3,517,151	2,990,204
Humphreys	Humphreys	1,919,126	2,656,921	2,537,675	2,803,818	2,639,743
Ittawamba	Ittawamba	1,061,054	1,422,997	1,416,629	1,637,892	1,591,000

(Continued)

Appendix Table 2. Total public school revenue by school district, Mississippi, 1967-68 through 1971-72, continued

County	District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
				(Dollars)		
Jackson	Jackson	1,380,869	1,956,150	2,190,820	2,778,403	3,086,574
Jackson	Moss Point	2,105,931	2,744,509	2,716,550	3,126,511	3,272,347
Jackson	Ocean Springs	1,037,506	1,407,128	1,485,699	1,747,431	1,936,382
Jackson	Pascagoula	2,326,286	3,178,433	3,643,831	4,070,036	4,678,918
Jasper	East Jasper	832,129	1,011,539	811,667	1,097,825	960,685
Jasper	West Jasper	602,274	728,447	792,299	1,088,321	1,026,013
Jefferson	Jefferson	774,650	1,082,082	1,067,827	1,784,299	1,470,969
Jefferson Davis	Jefferson Davis	1,179,704	1,302,857	1,342,070	1,950,296	2,232,767
Jones	Jones	2,676,395	3,580,302	3,484,151	4,027,386	4,140,457
Jones	Laurel	2,493,764	3,087,713	2,883,415	3,456,615	3,260,294
Kemper	Kemper	1,260,152	1,702,223	1,787,457	1,652,562	1,614,740
Lafayette	Lafayette	781,664	1,018,710	970,013	1,270,801	1,347,318
Lafayette	Oxford	1,133,312	1,439,234	1,384,260	1,748,675	1,711,787
Lamar	Lamar	1,012,684	1,259,352	1,318,637	1,769,804	2,006,506
Lamar	Lumberton	386,582	328,811	333,387	523,696	497,923
Lauderdale	Lauderdale	1,720,196	2,289,541	2,236,370	2,540,939	2,829,108
Lauderdale	Meridian	4,970,797	5,835,209	5,866,530	5,629,812	6,285,914
Lawrence	Lawrence	869,293	1,278,832	1,201,630	1,442,330	1,505,258
Leake	Leake	1,791,756	2,204,610	2,119,933	2,428,848	2,174,945
Lee	Lee	1,629,094	1,974,215	1,978,891	2,150,378	2,294,641
Lee	Nettleton Line	390,172	519,601	613,056	582,693	588,416
Lee	Tupelo	2,796,231	2,974,663	3,155,418	3,613,200	3,924,440
Leflore	Leflore	3,551,967	4,243,889	4,251,023	4,846,229	4,612,149
Leflore	Greenwood	2,684,132	3,163,407	2,997,904	3,390,797	3,330,165
Lincoln	Lincoln	817,730	1,047,392	1,148,146	1,206,544	1,236,306
Lincoln	Brookhaven	1,255,213	1,614,637	1,514,174	1,974,879	2,011,527
Lowndes	Lowndes	1,374,850	1,496,416	1,510,581	1,979,325	2,256,223
Lowndes	Columbus	3,335,073	4,184,200	4,056,780	4,792,938	5,048,474
Madison	Madison	1,786,996	2,491,397	2,385,397	2,928,994	2,541,653
Madison	Canton	1,623,732	2,132,785	1,930,561	3,090,927	1,990,097
Marion	Marion	1,300,855	1,768,334	1,920,399	1,638,383	1,605,686
Marion	Columbia	983,304	1,380,039	1,276,258	1,395,779	1,433,851
Marshall	Marshall	1,209,295	2,005,928	2,063,218	2,377,626	2,237,044
Marshall	Holly Springs	724,471	1,081,423	1,129,290	1,319,509	1,145,533
Monroe	Monroe	750,510	986,628	1,029,613	1,195,658	1,189,419
Monroe	Aberdeen	1,084, 507	1,511,076	1,467,790	1,851,272	1,572,997
Monroe	Amory	881,438	1,060,976	1,109,524	1,302,030	1,486,641
Montgomery	Montgomery	709,447	1,091,569	970,018	1,048,289	967,341
Montgomery	Winona	540,950	580,540	699,876	917,772	1,078,554
Neshoba	neshoba	1,024,024	1,373,008	1,349,717	1,386,194	1,562,025
Neshoba	Philadelphia	649,291	829,793	785,087	862,914	817,841
Neshoba	Newton County	713,184	824,764	863,953	1,117,854	1,116,284
Neshoba	Newton Separate	622,201	726,536	745,122	1,085,515	956,924
Newton	Union	362,542	349,396	347,836	528,785	459,992
Noxubee	Noxubee	1,166,816	2,255,333	1,925,868	1,963,632	2,127,313
Oktibbeha	Oktibbeha	944,063	969,321	1,218,801	1,866,550	1,498,364
Oktibbeha	Starkville	1,439,967	1,674,142	1,904,669	2,549,902	2,212,057
Panola	North Panola	1,267,683	1,721,056	1,718,241	1,876,465	2,061,783
Panola	South Panola	1,601,935	1,784,880	2,020,187	2,386,571	2,294,527

(Continued)

Appendix Table 2. Total public school revenue by school district, Mississippi, 1967-68 through 1971-72, continued

County	District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
		(Dollars)				
Pearl River	Pearl River	366,797	499,300	496,022	702,894	653,800
Pearl River	Picayune	1,555,258	1,821,259	1,769,580	2,095,190	2,166,503
Pearl River	Poplarville	597,280	756,309	850,952	1,124,340	1,120,827
Perry	Perry	634,826	615,471	648,377	1,062,629	1,199,246
Perry	Richton	253,409	369,079	427,413	503,866	494,967
Pike	North Pike	423,961	561,907	528,286	618,643	538,451
Pike	South Pike	965,284	1,269,623	1,237,354	1,508,596	1,662,843
Pike	McComb	2,617,990	2,732,583	3,008,926	3,025,295	2,430,270
Pontotoc	Pontotoc County	829,356	1,562,233	1,314,964	2,070,226	1,794,312
Pontotoc	Pontotoc Separate	400,615	426,942	540,680	747,810	820,027
Prentiss	Prentiss	1,296,630	1,747,815	2,010,803	2,272,090	2,259,491
Prentiss	Baldwyn	262,283	343,293	355,451	564,327	546,929
Quitman	Quitman	1,916,423	2,749,901	2,565,671	3,106,089	2,635,417
Rankin	Rankin	3,145,466	4,536,498	4,383,429	4,906,077	5,039,084
Scott	Scott	1,448,030	1,705,928	1,663,277	2,267,984	2,340,134
Scott	Forest	699,943	789,654	804,562	1,072,371	972,329
Sharkey	Anguilla Line	434,662	507,346	551,719	845,154	538,943
Sharkey	Sharkey Issaquena	1,020,066	1,515,623	1,197,493	1,337,749	1,172,307
Simpson	Simpson	1,495,964	1,893,702	1,939,557	2,610,931	2,636,622
Smith	Smith	1,272,188	1,487,436	1,332,562	1,962,855	866,167
Stone	Stone	646,906	758,573	861,481	1,128,864	1,171,016
Sunflower	Sunflower	1,880,721	2,777,723	2,397,764	3,089,442	2,849,818
Sunflower	Drew	1,094,315	1,311,835	1,209,331	1,230,458	952,593
Sunflower	Indianola	1,317,399	1,989,549	1,602,404	1,706,020	1,765,646
Tallahatchie	East Tallahatchie	1,151,311	1,468,608	1,367,210	1,556,507	1,550,171
Tallahatchie	West Tallahatchie	851,375	1,139,544	1,035,510	1,441,840	1,897,127
Tate	Tate	1,341,435	1,930,128	1,755,080	2,189,422	2,051,746
Tate	Senatobia	358,471	476,720	574,180	756,554	658,540
Tippah	North Tippah	451,380	599,428	590,303	730,397	663,608
Tippah	South Tippah	915,808	872,953	1,068,254	1,295,827	1,177,866
Tishomingo	Tishomingo	802,121	993,647	1,370,796	1,454,504	1,339,384
Tishomingo	Iuka	339,547	418,705	429,162	498,448	496,610
Tunica	Tunica	1,197,009	2,302,627	1,656,656	2,197,866	1,824,966
Union	Union	876,829	1,149,726	1,157,600	1,265,706	1,363,282
Union	New Albany	833,479	1,205,478	1,029,040	1,610,822	1,538,041
Walthall	Walthall	1,044,900	1,266,621	1,240,218	2,030,186	1,761,257
Warren	Warren	1,985,124	2,309,309	2,611,698	3,280,319	3,744,223
Warren	Vicksburg	2,969,900	3,362,469	3,246,837	3,595,303	3,616,316
Washington	Hollandale	713,681	885,484	1,171,885	1,330,538	1,284,821
Washington	Leland	1,057,998	1,353,273	1,515,181	1,899,312	1,824,864
Washington	Western Line	1,239,415	1,484,391	1,329,868	1,473,473	1,350,346
Washington	Greenville	4,874,476	6,212,000	5,985,733	6,958,818	6,406,647
Wayne	Wayne	1,279,780	1,508,798	1,531,124	1,917,234	2,032,657
Webster	Webster	676,629	811,290	830,173	1,324,990	1,389,889
Wilkinson	Wilkinson	1,299,170	1,950,379	1,713,158	1,679,082	1,469,453
Winston	Louisville	1,861,680	2,452,460	2,361,985	2,850,092	2,987,449
Yalobusha	Coffeeville	636,172	621,102	701,049	891,297	916,170
Yalobusha	Water Valley	494,043	544,144	555,985	725,304	800,969
Yazoo	Yazoo	1,674,248	2,385,652	2,152,954	2,142,995	1.917.468

(Continued)

Appendix Table 2. Total public school revenue by school district, Mississippi, 1967-68 through 1971-72, continued

County	District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
		(Dollars)				
Yazoo	Holly Bluff	243,021	398,036	355,414	360,866	363,373
Yazoo	Yazoo Separate	1,280,138	1,822,266	1,759,592	1,899,829	2,017,538

SOURCE: Ten Year Trend Study [17] and Superintendent's Annual Report to the Legislature, 1970-71 and 1971-72, State Department of Education [11, 12].

Appendix Table 3. Total annual current expenditure per pupil by school district, Mississippi public schools, 1967-68 through 1971-72

Home County	School District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
Adams	Natchez-Adams	379.54	480.15	550.50	669.23	644.75
Alcorn	Alcorn	374.60	490.33	488.64	553.88	495.58
	Corinth	346.91	445.73	486.55	517.22	559.12
Amite	Amite	307.03	423.23	483.38	629.25	642.17
Attala	Attala	348.87	479.78	477.39	692.19	660.93
	Kosciusko	343.35	381.53	417.93	580.58	622.55
Benton	Benton	334.16	425.23	497.37	624.71	571.47
Bolivar	Bolivar #1	360.54	484.63	510.08	676.84	616.71
	Bolivar #2	361.89	549.69	590.29	732.85	700.53
	Bolivar #3	404.52	504.29	575.62	665.23	601.55
	Bolivar #4	327.50	418.02	463.55	529.34	537.45
	Bolivar #5	402.16	532.59	484.96	631.42	600.42
	Bolivar #6	305.48	409.87	475.46	565.29	558.53
Calhoun	Calhoun	352.85	479.19	436.60	513.67	551.29
Carroll	Carroll	362.36	484.44	536.91	724.84	782.51
Chickasaw	Chickasaw	363.91	491.23	584.89	640.85	635.75
	Houston	333.30	466.11	429.58	556.03	606.55
	Okolona	302.36	417.90	378.44	540.49	562.91
Choctaw	Choctaw	348.67	397.57	392.95	588.89	609.47
Claiborne	Claiborne	370.96	492.51	490.68	659.79	590.68
Clarke	Enterprise	438.14	496.53	641.05	580.60	627.45
	Quitman	333.91	475.30	490.05	590.24	570.23
Clay	Clay	359.07	604.24	651.51	664.37	673.49
	West Point	311.63	401.77	431.00	505.22	532.71
Coahoma	Coahoma	372.65	455.69	499.08	717.23	660.81
	Clarksdale	347.56	422.68	471.13	649.50	692.69
Copiah	Copiah	269.88	339.81	346.17	569.16	581.62
	Hazlehurst	272.03	336.17	346.10	617.43	618.56
Covington	Covington	350.08	440.04	485.96	597.04	534.60
DeSoto	DeSoto	297.32	388.86	371.39	461.84	470.46
Forrest	Forrest	317.53	394.21	424.38	442.56	452.86
	Hattiesburg	370.11	469.01	482.30	566.85	640.01
Franklin	Franklin	372.85	456.01	512.63	625.77	691.93
George	George	290.94	407.01	420.37	469.17	483.64
Greene	Greene	364.67	478.54	481.06	554.08	570.02
Grenada	Grenada	288.02	368.99	376.59	554.88	505.84
Hancock	Hancock	480.77	532.84	554.73	642.46	602.77
	Bay St. Louis	423.44	493.41	457.23	610.51	628.02
Harrison	Harrison	317.75	367.47	474.24	440.76	457.98
	Biloxi	374.65	492.42	505.05	564.63	625.38
	Gulfport	358.61	429.24	468.79	560.00	547.38
	Long Beach	353.41	441.48	439.08	482.74	524.81

(Continued)

Appendix Table 3. Total annual current expenditure per pupil by school district, Mississippi public schools, 1967-68 through 1971-72, continued

Home County	School District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
	Pass Christian	417.25	461.44	547.36	609.07	721.44
Hinds	Hinds	284.30	414.05	401.51	580.53	557.28
	Jackson Sep.	385.81	495.95	527.63	773.23	825.54
Holmes	Holmes	371.31	476.27	494.96	650.06	618.03
Humphreys	Humphreys	354.19	513.74	540.93	642.26	661.04
Issaquena	None					
Ittawamba	Ittawamba	332.80	424.02	404.25	519.70	494.40
Jackson	Jackson	302.61	372.68	405.96	443.47	492.39
	Moss Point	298.10	370.27	371.63	434.65	482.17
	Ocean Springs	301.31	419.08	388.56	447.50	473.77
	Pascagoula	310.35	387.07	409.01	491.14	548.84
Jasper	East Jasper	323.14	421.37	384.58	597.54	624.66
	West Jasper	259.41	322.60	339.05	531.32	542.41
Jefferson	Jefferson	260.58	340.76	372.88	676.18	582.41
Jefferson Davis	Jefferson Davis	287.95	354.90	375.25	543.32	540.71
Jones	Jones	306.36	365.43	406.64	493.53	494.23
	Laurel	353.78	465.34	442.80	550.78	560.22
Kemper	Kemper	374.66	503.34	538.79	733.00	741.60
Lafayette	Lafayette	371.77	441.37	475.25	518.96	594.45
	Oxford	333.74	427.09	425.08	558.06	550.02
Lamar	Lamar	294.25	360.98	378.88	484.20	488.31
	Lumberton Line	315.41	317.38	369.08	536.04	476.06
Lauderdale	Lauderdale	325.88	449.72	425.22	500.78	523.40
	Meridian	389.89	492.40	522.65	636.68	618.56
Lawrence	Lawrence	284.71	402.45	407.75	492.51	499.89
Leake	Leake	354.77	497.25	480.92	629.15	587.92
Lee	Lee	305.00	415.76	414.25	452.10	469.40
	Nettleton Line	279.44	373.19	472.07	428.36	463.43
	Tupelo	418.91	522.65	509.95	600.12	639.78
Leflore	Leflore	393.25	521.43	327.75	807.69	805.48
	Greenwood	393.03	483.55	509.95	676.26	673.81
Lincoln	Lincoln	309.80	413.12	452.94	519.91	543.60
	Brookhaven	285.47	364.83	364.72	496.13	511.16
Lowndes	Lowndes	306.71	348.81	342.89	463.89	521.20
	Columbus	346.78	434.34	434.27	504.83	562.78
Madison	Madison	354.48	477.92	481.17	604.13	595.32
	Canton	264.62	375.15	438.80	524.00	477.35
Marion	Marion	342.90	481.87	621.08	614.64	574.93
	Columbia	355.84	483.65	532.37	592.04	623.86
Marshall	Marshall	261.70	392.32	444.36	560.86	535.48
	Holly Springs	278.23	410.95	534.70	668.22	593.11

(Continued)

Appendix Table 3. Total annual current expenditure per pupil by school district, Mississippi public schools, 1967-68 through 1971-72, continued

Home County	School District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-72
Monroe	Monroe	320.16	409.12	436.97	501.29	471.77
	Aberdeen	318.87	419.00	448.77	596.24	561.43
	Amory	369.07	468.78	444.41	577.07	622.78
Montgomery	Montgomery	309.76	443.41	479.23	607.13	577.41
	Winona	282.47	328.14	398.68	468.77	548.77
Neshoba	Neshoba	313.02	403.44	389.31	513.58	523.10
	Philadelphia	391.58	484.02	535.08	560.21	619.52
Newton	Newton	324.35	354.58	413.62	588.60	619.79
	Newton	321.22	365.43	379.28	531.29	572.26
	Union	328.37	346.25	375.29	529.75	554.06
Noxubee	Noxubee	275.86	487.45	825.34	576.24	691.16
Oktibbeha	Oktibbeha	316.93	319.02	358.78	621.94	546.84
	Starkville	308.66	366.72	404.06	562.67	530.11
Panola	North Panola	308.81	444.35	492.05	704.75	693.45
	South Panola	304.18	363.74	433.50	560.40	554.78
Pearl River	Pearl River	333.11	420.51	399.64	502.09	507.02
	Picayune	354.54	387.77	388.39	527.50	539.58
	Poplarville	339.09	406.13	427.96	568.96	597.85
Perry	Perry	391.09	407.61	423.16	634.99	727.83
	Richton	272.44	398.57	431.41	503.41	521.38
Pike	North Pike	307.90	399.37	441.75	514.23	483.43
	South Pike	299.51	389.41	404.29	468.91	494.79
	McComb	484.26	619.49	676.15	741.72	624.01
Pontotoc	Pontotoc	302.11	512.87	443.01	578.20	579.05
	Pontotoc	351.43	393.60	346.52	441.11	487.10
Prentiss	Prentiss	308.39	437.61	424.56	488.09	518.39
	Baldwyn	246.28	312.04	321.05	543.35	491.14
Quitman	Quitman	379.68	542.09	268.26	761.22	701.12
Rankin	Rankin	295.40	390.21	410.56	484.58	467.95
Scott	Scott	298.65	326.65	338.65	480.97	506.17
	Forest	328.26	386.12	400.59	612.97	609.04
Sharkey	Anguilla Line	436.60	551.76	545.50	684.55	583.58
	Sharkey-Issaquena	348.15	477.19	488.99	700.64	557.48
Simpson	Simpson	275.61	346.16	371.44	554.01	542.90
Smith	Smith	324.95	377.67	357.31	475.74	541.90
Stone	Stone	332.39	381.29	430.09	529.57	543.50
Sunflower	Sunflower	393.85	538.10	518.05	661.29	710.36
	Drew	411.59	586.09	645.41	871.96	805.39
	Indianola	303.77	497.20	470.45	591.25	549.32
Tallahatchie	East Tallahatchie	350.88	467.47	432.22	574.40	612.05
	West Tallahatchie	304.11	357.58	372.93	558.57	673.03
Tate	Tate	327.64	450.07	465.71	618.84	572.91
	Senatobia	264.70	334.60	389.60	583.15	581.56

(Continued)

Appendix Table 3. Total annual current expenditure per pupil by school district, Mississipp public schools, 1967-68 through 1971-72, continued

Home County	School District	School Year				
		1967-68	1968-69	1969-70	1970-71	1971-7
Tippah	North Tippah	319.36	462.98	395.91	561.35	517.19
	South Tippah	305.31	374.00	413.67	530.00	473.87
Tishomingo	Tishomingo	342.99	449.96	451.44	569.23	591.69
	Iuka	282.16	364.84	339.18	418.18	454.78
Tunica	Tunica	321.68	599.89	572.16	718.21	611.36
Union	Union	354.27	451.63	437.39	528.19	537.32
	New Albany	337.40	498.71	459.73	578.49	734.78
Walthall	Walthall	339.20	336.35	381.22	599.42	613.92
Warren	Warren	309.48	424.54	465.63	568.55	566.49
	Vicksburg	422.10	507.80	539.46	623.69	636.61
Washington	Hollandale	269.22	349.08	477.41	663.53	627.00
	Leland	294.15	365.41	432.49	621.00	610.44
	Western Line	402.59	524.15	540.76	655.63	703.85
	Greenville	385.26	457.75	465.78	600.85	602.40
Wayne	Wayne	287.72	323.60	327.85	432.09	483.18
Webster	Webster	297.69	360.95	364.64	525.08	610.23
Wilkinson	Wilkinson	310.05	442.74	476.16	651.10	681.21
Winston	Louisville	334.32	440.68	473.41	573.58	592.16
Yalobusha	Coffeeville	354.41	353.59	381.01	781.22	688.43
	Water Valley	278.75	338.57	342.00	456.25	531.37
Yazoo	Yazoo	412.26	559.20	661.32	807.44	772.15
	Holly Bluff	352.76	518.44	627.95	867.72	799.25
	Yazoo	314.35	412.75	512.56	529.85	522.59

SOURCE: Ten Year Trend Study [17], and Current Expenditures Per Pupil by School Distric and Related Information, 1970-71 and 1971 [13, 14] State Department of Education.

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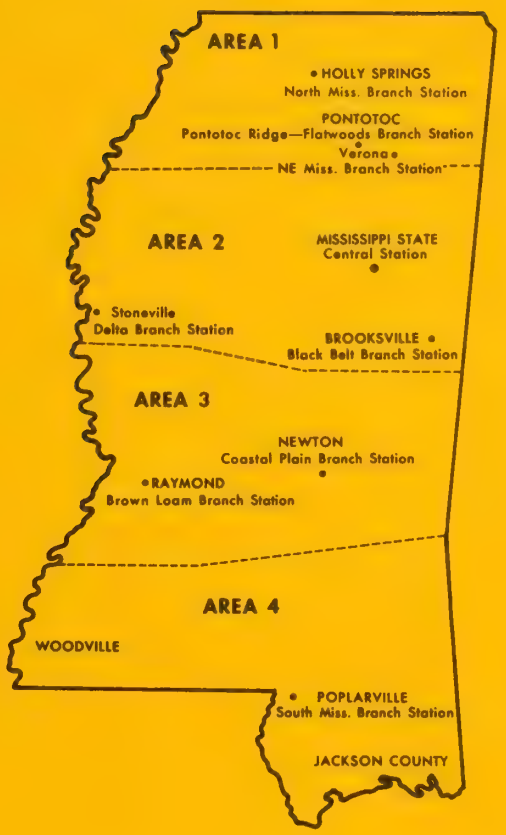
Mississippi Hybrid Corn Performance Trials in 1976



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The test reported in Jackson County was on a private farm through the cooperation of James Clark, RFD 1, Pascagoula and M. P. Lewis, County Agent.

The test reported in Wilkinson County was on a private farm through the cooperation of T. O. Whitaker, RFD 4, Woodville and John Dale, County Agent.

Mississippi Hybrid Corn Performance Trials in 1976

Trials are conducted annually in Mississippi to provide farmers, seedsmen, county agents, and other interested persons with information on the performance of commercially available corn hybrids. These results are provided for use by corn producers in selecting hybrids suited to their area. New hybrids may be compared with familiar hybrids and with check hybrids (Dixie 18, Dixie 55, Miss. 0002, and Miss. 6131) that are included in all tests. Seed of the two Dixie hybrids may or may not be commercially available. Seed of Miss. 0002 and Miss. 6131 are not commercially available.

The best guide to the desirability of a hybrid is its performance over a period of years at a number of locations. Therefore, 3-year summaries are reported for all areas.

Corn hybrids respond differently to variations in environment and a given hybrid is not always the best under all conditions. Therefore, it is suggested that corn producers grow two or more *good* hybrids each year. This practice also reduces the chances for spread of a disease or insect infestation through the total corn acreage.

The yield of harvestable good-quality grain (or silage) determines the desirability of corn hybrids. However, attributes other than yield may be extremely important in some instances. For example, resistance to a particular disease should be the prime consideration in areas where the disease occurs. That is, selection should be among hybrids that are known to have resistance to diseases associated with geographic areas.

All producers and distributors of seed corn are eligible to enter hybrids in these tests. The producers designate which hybrids they want entered in each area. Hybrids must be submitted for entry to the Mississippi Agricultural and Forestry Experiment Station by February 15. A nominal fee is charged for each hybrid tested in each area to help defray costs of the tests.

Two or more tests are located in each area. Trials were conducted at 11 locations in 1976 (Table 1).

Table 1. Number of entries and date of planting and harvest, hybrid corn performance trials by locations of trials, Mississippi, 1976.

County	Location	No. of entries	Planting date	Harvest date
	Area I			
Marshall	Holly Springs	35	April 22	Sept. 30
Pontotoc	Pontotoc	35	April 14	Sept. 16
Lee	Verona	35	April 20	Sept. 28
	Area II			
Noxubee	Brooksville	39	May 14	---
Oktibbeha	Mississippi State	39	May 20	Oct. 14
Washington	Stoneville	39	April 5	Sept. 7
	Area III			
Newton	Newton	35	March 24	Aug. 10
Hinds	Raymond	35	April 15	Sept. 23
	Area IV			
Wilkinson	Woodville	30	April 6	Aug. 31
Pearl River	Poplarville	30	March 1	Aug. 16-17
Jackson	Pascagoula	30	March 15	Aug. 18

Materials and Methods

A randomized complete-block experimental design with five replications was used at all locations. Each plot consisted of two rows, 40 inches apart and 200 inches long. All tests were overplanted and later thinned to 16,000 plants per acre (plants 10 inches apart within the row), except at Verona where plots were seeded at a rate to give 23,000 plants per acre and were not thinned. Fertilizer was applied by each cooperator as he thought necessary and weeds were controlled by cultivation and herbicides.

Days from planting to 50% silk were taken only at Stoneville. Data on number of ears per 100 plants were not collected at Mississippi State, because a mechanical harvester was used. All other trials were hand-picked.

Ear corn from each plot was weighed separately and moisture was determined for samples taken from two replications in each test.

Table 2. Performance of 34 hybrids in Mississippi hybrid corn performance trials, Area I, average of three locations (Holly Springs, Pontotoc and Verona), 1976.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
Funks G-4848	125.9	1	5	137	97	22.9	106
Pioneer Brand 3145	122.2	0	3	140	107	19.4	106
Funks G-4776	119.6	0	13	153	99	21.5	105
Funks G-4747W	116.1	0	8	154	97	21.2	107
Pioneer Brand 3009	115.2	3	20	153	97	22.9	106
Funks G-4611	115.2	0	7	129	99	16.1	105
McCurdy 72-44A	114.2	0	11	134	97	18.9	105
DeKalb XL394	112.8	0	3	169	103	18.9	109
Funks G-4864	110.6	0	3	136	98	19.1	106
Pioneer Brand 3147	109.3	0	6	136	101	18.8	106
Wilstar 9990	109.3	1	9	127	102	20.6	100
Pioneer Brand 511A	108.5	1	11	157	113	19.5	105
Wilstar 9997	107.1	1	11	129	94	22.9	101
Miss. 6131	106.9	2	24	172	124	18.7	102
Funks G-4810	105.4	1	9	132	101	20.7	102
Coker 18	104.9	0	12	131	96	18.2	107
McNair 508	104.5	1	5	174	130	23.6	108
Ring Around RA3602	104.0	1	4	147	107	18.4	108
DeKalb XL72B	103.8	1	7	113	102	18.7	103
Funks G-5757	103.4	1	8	131	102	19.5	107
Funks G-4850	101.0	2	10	146	97	20.9	104
Wilstar 7676	100.5	1	7	121	105	20.5	102
Wilstar 6663	99.4	1	6	131	101	16.9	102
DeKalb XL 390A	99.4	0	11	143	97	19.9	108
Funks G-795W-1	97.8	1	21	146	111	19.8	100
Funks G-4880W	96.8	2	6	149	98	21.5	104
Funks G-4525	96.2	0	13	118	97	16.0	106
Wilstar 7774	95.2	1	9	124	101	19.3	100
Coker 56	94.5	0	8	145	104	21.0	103
Miss 0002	94.3	1	16	181	105	21.2	106
Wilstar 7770	93.4	1	7	119	95	17.1	102
Dixie 55	93.3	1	27	168	110	19.7	99
Ring Around RA2601	92.9	1	9	128	94	23.0	94
Dixie 18	82.6	1	11	201	105	21.9	103
MEAN	104.0	1	10	145	102	20.0	104

CV = 12.77%
LSD (.05) = 9.5 bu/A

Test Results Area I

Yields of hybrids tested ranged from 58 to 105, 80 to 128 and 88 to 153 at Pontotoc, Holly Springs and Verona, respectively. Averaged over the three locations, yields ranged from 83 bushels per acre for Dixie 18 to 126 bushels for Funks G-4848 (Table 2).

Plants grew taller and ear height was greater at Verona than at the other locations---a result that we attribute in part to the higher plant population in the Verona test.

Stalk lodging was highest at Pontotoc---ranging from 2 to 61 percent.

Severe damage by maize dwarf mosaic was observed at Pontotoc. Yield of susceptible hybrids was reduced by this disease.

Performance of hybrids that have been tested in Area I for the last three years is given in Table 3.

Table 3. Performance of 12 hybrids in Mississippi hybrid corn performance trials, Area I, 1974-76 average.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
Pioneer Brand 3147	106.9	0	7	133	104	20.4	99
Miss 6131	100.4	1	17	158	124	19.0	96
Pioneer Brand 3009	98.3	1	10	137	96	22.1	96
Dixie 55	92.2	0	16	149	111	19.4	95
Funks G-4864	88.3	0	8	123	93	19.7	98
Funks G-4810	88.2	0	13	118	95	20.7	93
Pioneer Brand 511A	84.3	1	13	132	110	19.4	91
Coker 56	80.9	0	10	123	102	21.5	96
Funks G-5757	80.0	1	11	111	95	20.0	95
Dixie 18	75.6	0	11	169	107	21.4	93
Funks G-795W-1	74.4	1	18	123	99	20.4	94
Miss 0002	71.7	1	20	151	100	20.8	95
MEAN	86.8	1	13	136	103	20.4	95

Table 4. Performance of 39 hybrids in Mississippi hybrid corn performance trials, Area II, average of two locations (Mississippi State and Stoneville), 1976.

Hybrid	Yield	Lodging stalk	Ear height	Ears/100[1] plants	Mid[1] silk	Mois-ture	Stand
	bu/A	%	cm.	No.	days	%	%
Coker 77	130.5	6	147	182	83	18.9	92
P-A-G 751	129.7	7	148	189	86	18.5	85
Funks G-795W-1	125.8	8	128	156	80	17.1	87
Dixie 18	125.2	8	169	193	82	18.4	85
Dixie 55	124.4	11	147	175	82	18.4	87
McCurdy 72-24	121.8	7	152	190	81	16.9	83
Funks G-5945	120.9	6	143	143	85	19.2	90
Funks G-4776	120.6	9	138	100	81	19.1	91
Funks G-4747W	120.3	7	135	106	82	19.4	90
McNair 508	117.7	7	147	203	86	19.4	90
DeKalb XL 394	117.2	6	137	172	81	19.1	88
Funks G-4850	116.1	9	138	121	80	17.9	88
Pioneer Brand 3147	115.7	7	130	119	87	17.6	85
DeKalb XL 395	114.8	6	145	156	85	19.0	90
Pioneer Brand 3145	114.3	6	131	118	78	19.9	91
Funks G-4848	113.8	4	117	103	84	20.4	88
McCurdy 75-15	113.1	9	153	163	86	18.8	91
DeKalb XL 390A	112.4	6	124	165	81	17.1	87
Coker 56	111.0	6	125	162	83	18.5	86
Miss 6131	110.4	13	143	171	82	16.7	94
McCurdy 73-47A	108.6	6	145	152	82	18.6	86
Funks G-4949A	108.1	8	136	143	82	19.3	87
Funks G-4525	108.0	5	116	123	75	16.1	92
Funks G-4864	107.9	5	128	113	80	16.8	86
Pioneer Brand 511A	107.9	8	128	160	80	17.6	89
Funks G-4880W	107.7	7	136	131	84	18.7	89
P-A-G 644W	107.3	7	139	126	82	17.1	88
Miss 0002	106.0	7	144	181	85	16.7	89
Wilstar 9997	104.4	4	122	119	78	19.5	83
Funks G-4810	102.6	5	127	127	78	17.7	94
Pioneer Brand 3009	100.5	8	137	107	82	19.8	83
Ring Around RA3602	98.7	5	133	141	78	18.1	89
Coker 18	96.6	6	124	103	77	17.0	89
Wilstar 7676	96.0	8	108	120	77	18.0	79
Funks G-5757	94.1	5	117	109	77	18.3	85
Funks G-4611	91.7	7	123	103	75	16.6	84
Wilstar 9990	90.6	8	108	106	78	16.4	83
Wilstar 6663	89.3	5	116	110	76	16.1	78
Ring Around RA 2601	82.5	4	117	110	79	19.2	81
MEAN	108.5	7	130	140	81	18.2	87

CV = 17.58%
LSD (.05) = 16.5 bu/A

[1]Data taken only at Stoneville.

Test Results Area II

We replanted the tests at Brooksville and Mississippi State because stands from the initial plantings were extremely poor. However, stands at Brooksville still were not adequate and this test was not harvested.

Yields averaged 137 bushels per acre at Stoneville and 77 bushels at Mississippi State. The average for the two locations was 108.5 bushels (Table 4).

Performance of hybrids that have been tested in Area II for the last three years is given in Table 5.

Table 5. Performance of 16 hybrids in Mississippi hybrid corn performance trials, Area II, 1974-76 average.

Hybrid	Yield	Lodging stalk	Ear height	Ears/100 plants	Moisture	Mid-silk	Stand
	bu/A	%	cm.	no.	%	days	%
McCurdy 72-24	121.7	10	145	151	17.8	74	95
Funks G-795W-1	120.2	13	117	141	17.8	73	93
Dixie 55	115.4	13	137	154	18.2	74	94
Pioneer Brand 3147	114.4	7	120	117	18.5	73	94
Miss 6131	112.2	18	132	156	17.1	74	98
McCurdy 73-47A	112.2	10	133	144	18.4	73	92
Funks G-5945	111.7	7	129	129	19.4	76	98
Dixie 18	105.7	9	156	152	18.9	78	95
Miss 0002	105.5	14	137	153	18.0	77	95
Funks G-4864	104.0	4	116	108	17.6	73	94
Pioneer Brand 511A	104.0	10	116	141	17.9	73	93
Coker 56	104.0	6	117	138	19.1	74	95
P-A-G 644W	103.9	7	129	111	17.8	74	96
Pioneer Brand 3009	100.9	8	124	106	19.9	75	92
Funks G-4810	100.5	6	118	117	18.1	70	98
Funks G-4949A	97.0	6	125	126	19.3	74	90
MEAN	108.3	9	128	134	18.4	74	95

Table 6. Performance of 33 hybrids in Mississippi hybrid corn performance trials, Area III, average of two locations (Newton and Raymond), 1976.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
Wilstar 9990	112.2	0	7	117	99	15.4	99
Pioneer Brand 3009	110.7	1	14	140	100	17.2	99
Pioneer Brand 3147	110.3	1	5	117	103	15.0	100
Pioneer Brand 3145	108.5	0	6	120	102	15.4	101
Funks G-4776	107.5	0	8	138	96	16.2	99
Pioneer Brand 3368A	105.5	0	5	113	102	15.6	99
DeKalb XL394	105.0	0	4	146	112	15.5	98
Pioneer Brand 511A	105.0	1	16	119	115	15.8	99
Pioneer Brand 3369A	104.8	0	8	110	103	14.2	99
Coker 77	104.8	0	10	153	115	15.7	97
Funks G-4810	104.3	0	5	119	102	15.3	100
Funks G-4864	104.2	0	5	128	98	14.5	99
Funks G-5945	104.2	0	9	146	100	15.9	99
Funks G-4949A	103.9	0	4	137	111	16.5	98
Funks G-4747W	103.6	0	12	140	100	15.1	95
Wilstar 6663	102.1	0	2	119	103	14.2	95
Dixie 55	99.8	2	35	154	119	15.5	98
Ring Around RA2601	99.7	0	5	119	92	15.4	93
Funks G-795W-1	99.6	1	29	127	108	15.1	98
Funks G-4850	99.3	1	7	125	100	16.5	97
Coker 56	99.1	0	15	128	106	16.3	101
P-A-G 6444W	99.1	0	17	144	96	14.8	99
Wilstar 9997	98.9	1	12	127	100	17.7	98
Ring Around RA3602	98.9	0	4	134	103	14.8	99
McNair 508	98.0	0	8	142	140	17.4	98
DeKalb XL395	96.8	1	11	146	99	16.2	99
Pioneer Brand 3030	96.5	1	13	131	110	17.4	96
Miss. 6131	96.3	3	39	141	121	15.8	98
P-A-G 751	95.6	1	24	148	123	16.6	98
Funks G-4880W	94.8	0	8	129	99	16.0	100
Miss. 0002	94.1	0	21	156	118	15.6	96
Coker 54	91.2	0	8	129	108	16.0	100
Dixie 18	78.2	1	14	172	106	16.5	96
MEAN	100.6	1	12	134	106	15.8	98

CV = 8.28%
LSD (.05) = 7.3 bu/A

Test Results Area III

Yields at Raymond and Newton averaged 116 and 85 bushels per acre, respectively, with a combined average of 101 bushels (Table 6). Stalk lodging was less than 10 percent for 18 of the 33 hybrids tested. Ear height was lowest for Pioneer Brand 3369A, highest for Dixie 18.

Performance of the hybrids that have been tested in Area III for the last three years is given in Table 7.

Table 7. Performance of 17 hybrids in Mississippi hybrid corn performance trials, Area III, 1974-76 average.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
Pioneer Brand 3147	97.6	2	8	107	98	13.8	96
Pioneer Brand 3009	95.9	2	13	116	95	15.7	92
Pioneer Brand 511A	95.4	2	11	113	106	14.6	93
Funks G-5945	92.4	1	9	126	101	15.3	93
Funks G-795W-1	92.2	2	18	111	104	14.1	93
Miss. 6131	91.9	5	24	127	121	14.1	94
Dixie 55	91.9	3	18	135	112	14.3	94
P-A-G 751	90.5	2	14	128	118	15.0	96
Funks G-4949A	90.0	1	8	121	103	15.2	95
Pioneer Brand 3030	89.8	2	11	114	104	15.7	92
Miss. 0002	88.8	2	18	134	111	14.3	93
DeKalb XL395	87.9	1	8	125	93	15.4	95
Funks G-4864	86.5	1	9	107	91	13.8	94
McNair 508	86.0	1	9	120	124	16.5	96
Coker 54	85.8	1	9	113	105	15.4	95
Funks G-4810	84.9	1	8	108	99	16.1	91
Dixie 18	78.0	2	12	150	109	15.3	91
MEAN	89.7	2	12	121	106	15.0	94

Table 8. Performance of 29 hybrids in Mississippi hybrid corn performance trials, Area IV, average of three locations (Woodville, Poplarville and Pascagoula), 1976.

Hybrid	Yield	Lodging root	Lodging stalk	Ear height	Ears/100 plants	Moisture	Stand
	bu/A	%	%	cm.	no.	%	%
Coker 77	130.6	0	2	123	123	18.2	99
McNair 508	127.8	0	5	120	138	19.1	96
DeKalb XL 395	122.7	0	1	119	107	17.4	96
P-A-G 751	117.2	1	15	120	127	17.9	97
Funks G-4810	117.0	0	4	104	100	17.4	99
Funks G-4776	116.9	0	5	112	98	17.5	99
Funks G-4850	116.5	0	2	105	106	16.7	98
Funks G-4949A	115.1	0	3	114	105	17.6	99
Funks G-4864	111.6	0	6	102	102	16.4	96
Funks G-4747W	111.7	0	7	109	99	17.6	98
Pioneer Brand 3009	110.0	0	5	104	98	18.9	98
Wilstar 9990	106.8	0	12	90	106	17.3	93
Funks G-5945	106.8	0	3	115	109	18.7	97
Pioneer Brand 3030	105.3	0	5	104	107	19.0	95
Dixie 55	104.8	0	21	119	118	17.2	97
Pioneer Brand 3145	104.7	0	5	97	103	17.0	96
DeKalb XL394	102.6	0	5	117	112	16.3	96
Miss 0002	102.4	0	22	120	120	18.0	94
Miss 6131	101.1	1	28	112	121	17.2	93
Wilstar 9997	99.2	0	8	100	96	18.9	96
Funks G-795W-1	98.8	1	20	105	111	17.6	94
Coker 54	98.3	0	9	106	106	18.7	93
Funks G-4880W	98.3	0	4	99	99	17.2	98
Pioneer Brand 3368A	97.8	0	3	88	102	16.0	95
Dixie 18	96.6	1	19	114	110	18.2	99
Pioneer Brand 3369A	96.2	0	5	86	103	15.6	94
Pioneer Brand 511A	95.4	0	5	99	110	17.2	94
Ring Around RA3602	88.1	0	4	103	102	15.6	91
Ring Around RA2601	79.6	0	4	93	102	18.1	84
MEAN	105.9	0	8	108	108	17.6	96

CV = 11.97%
LSD (.05) = 9.4 bu/A

Test Results Area IV

Yields in the southern part of Mississippi were above 100 bushels per acre for 17 of the 27 hybrids tested (Table 8). Average yield at Poplarville, Woodville and Pascagoula, respectively, was 96, 110 and 111 bushels. The test at Pascagoula received a higher rate of nitrogen than in previous tests and this, coupled with good rainfall distribution, resulted in yields as high as 151 bushels at this location.

Stalk lodging ranged from 2 to 57 percent at Poplarville but was not a problem at the other locations.

Performance of hybrids that have been tested in Area IV for the last three years is given in Table 9.

Table 9. Performance of 15 hybrids in Mississippi hybrid corn performance trials, Area IV, 1974-1976 average.

Hybrid	Yield	Lodging		Ear height	Ears/100 plants	Moisture	Stand
		root	stalk				
	bu/A	%	%	cm.	no.	%	%
McNair 508	81.5	1	9	105	120	19.6	86
Funks G-5945	74.2	6	13	104	102	18.5	89
P-A-G 751	74.0	5	25	101	110	17.4	86
Pioneer Brand 3009	73.6	3	27	91	94	18.4	88
Funks G-4810	73.3	2	20	90	97	17.1	89
Funks G-4949A	73.2	2	20	104	95	18.5	88
Pioneer Brand 3030	72.6	2	20	94	103	18.0	90
Funks G-4864	71.8	1	19	90	98	16.5	89
Funks G-795W-1	70.3	4	27	97	104	17.3	88
Dixie 18	70.0	2	19	121	102	17.8	92
Miss 6131	69.4	7	36	100	111	17.0	86
Coker 54	68.9	3	25	95	101	17.4	87
Dixie 55	67.6	3	37	105	108	17.1	85
Miss 0003	67.0	4	30	107	107	17.0	85
Pioneer Brand 511A	66.5	2	26	91	101	17.8	84
MEAN	71.6	3	24	100	103	17.7	88

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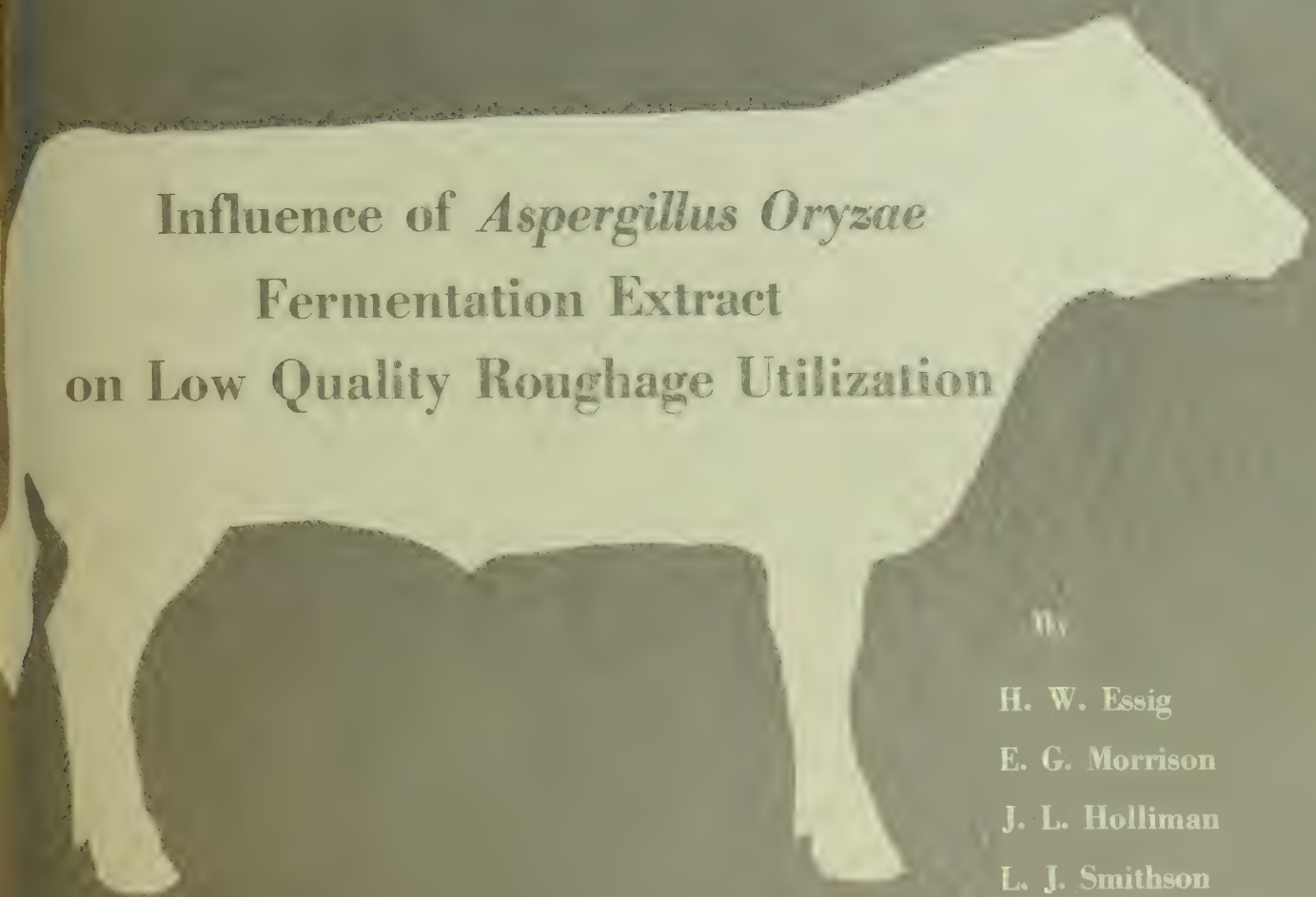

Influence of *Aspergillus Oryzae* Fermentation Extract on Low Quality Roughage Utilization

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Bulletin 849

Influence of *Aspergillus Oryzae* Fermentation Extract on Low Quality Roughage Utilization

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February 1977

Influence of *Aspergillus Oryzae* Fermentation Extract on Low Quality Roughage Utilization

Wintering beef cows on roughages supplemented with a protein source is a common practice in the southeastern United States. Winter feeding of low-quality roughages has increased importantly in recent years, and this has created a need for more precise determination of the protein supplementation required for efficient winter feeding of beef cows.

The objectives of this study were: 1) to compare cottonseed meal and *Aspergillus oryzae* fermentation extract (Vita-Ferm®)[1] in wintering rations for beef cows; 2) to determine nutrient digestibility of low quality roughages supplemented with cottonseed meal or *A. oryzae;* and 3) to measure the presence and utilization of metabolic intermediates and end products.

EXPERIMENTAL PROCEDURE

This study consisted of two separate trials. One, in which cows were fed a wintering ration and then fed a protein supplement during the summer months after the cows had calved, was conducted at the Brown Loam Branch Experiment Station, Raymond, Mississippi during winter of 1973-74 and spring-summer of 1974. The second was a digestibility experiment to measure the influence of protein materials on the digestibility of low-quality cotton by-products (roughages) and was conducted by the Animal Science Department, Mississippi State University during the spring of 1974.

Study 1---This study with wintering rations was started by weighing and dividing 39 cows into two groups on December 18, 1973. All cows were allowed to graze dormant bermudagrass pasture and were fed Coastal bermudagrass hay free choice. One group was fed a *76 percent cottonseed meal-24 percent salt* supplement, the other *Vita-Ferm 6-2-2*. Supplements were fed free choice from a covered bunker.

All cows were weighed at the end of the wintering period and moved the following day (March 8) to bermudagrass pasture. The group that previously had received *Vita-Ferm 6-2-2* was changed at that time to *Vita-Ferm cow-calf supplement* fed free choice.

All cows were weighed again on April 5 (after all had calved) to establish a base for determining gain during the summer grazing period. Supplementation with cottonseed meal-salt was discontinued at this time and the cows that previously had access to this mixture were retained on bermudagrass pasture (*without supplement*) until they were weighed at the end of the trial (October 16). Cows with access to *Vita-Ferm* cow-calf supplement were moved to another pasture (two-thirds bermudagrass and one-third fescue-white clover) about six weeks before the trial was terminated.

Study 2: Digestion Trial 1---Eighteen steers of similar age and weight were identified and stratified according to weight and breed across three groups of six animals. Each group of six animals was composed of three Angus steers and three Hereford steers. The three dietary treatments consisted of (1) gin trash, (2) gin trash plus *A. oryzae* (283.5 g of Vita-Ferm 6-2-2 per head daily) and (3) pelleted gin trash.[2] The conventional method of total collection for seven days was used to calculate digestibility values. Urine and feces were collected for use in chemical analyses and calculation of digestible energy and nitrogen retention values.

Study 2: Digestion Trial 2---The

[1]Vita-Ferm® 6-2-2 and Vita-Ferm cow-calf products of Biozyme Enterprises, Division of St. Joseph Feed and Supply Co., Inc., St. Joseph, MO 61504, were the sources of **Aspergillus oryzae** *fermentation extract. Biozyme Enterprises provided the Vita-Ferm products and a grant-in-aid for this study.*

[2]Gin trash was fed at 1.25 times maintenance requirement, computed by the equation:

$$\text{Quantity of feed per steer} = \frac{74.5\ (\text{wt. in lb. to } .75 \text{ power})}{\text{Estimated DE of feed}} \times 1.25$$

Table 1. Diet Ingredient Composition and Calculated Analysis of Dietary Treatments in Digestion Trial 2 at Mississippi State University, 1974.

Ingredients and analyses	Diet		
	Basal	Basal plus Vital-Ferm®6-2-2	Basal plus CSM
CSH, percent	76.8	76.8	76.8
CSM, percent	23.2	23.2	23.2
A. oryzae, g/head daily	—	283.5	—
CSM, g/head	—	—	181.44
Calculated analyses:			
CP, percent	12.0	—	—
DE, kcal/kg	2129.0	—	—

18 steers used in Trial 1 were randomized and used in a second digestion study to determine the influence of additives on digestible energy and nitrogen retention of cottonseed hull rations (Table 1). The three dietary treatments were: (1) basal CSH-CSM; (2) basal plus *A. oryzae* (283.5 g of Vita-Ferm 6-2-2 per head daily); and (3) basal plus 181 g of CSM (equivalent to crude protein in Vita-Ferm). The basal diet was fed at 1.25 times the maintenance requirement as calculated in Digestion Trial 1.

Chemical Analyses---Chemical analyses of the feed and feces for digestion Trials 1 and 2 included dry matter (DM), gross energy (GE) and nitrogen; to determine digestible dry matter (DDM), digestible energy(DE), energy digestion coefficient (EDC) and nitrogen retention (NR). Rumen fluid was obtained to be used in the IVDM determinations (Goering and Van Soest, 1970) and volatile fatty acid analyses (Rogillio and Essig, 1968) for both digestion trials. Rumen fluid was obtained by a stomach tube before feeding and at two and four hours after feeding.

RESULTS AND DISCUSSION

Study 1---There was no difference in average weight change of cows fed either cottonseed meal or Vita-Ferm during the winter feeding period (Table 2). Essig and Valentine (1964) indicated that enzymes from *A. oryzae* had no effect on gains of steers fed a finishing diet. There was a difference ($P < .01$) in final condition score in favor of those cows fed Vita-Ferm (Table 2).

Cows that were given access to Vita-Ferm and bermudagrass-fescue-clover six weeks before weaning gained more ($P < .01$) than did those given no supplement and allowed access to bermudagrass (Table 2). It is our opinion that the difference in the summer treatment was due to the influence of white clover during the final six weeks of the study. When data from the winter period and summer period trials were combined, there was a difference ($P < .01$) in daily gains---again this was probably due to the clover being available for six weeks to the Vita-Ferm treatment group and not to the control group.

Feed cost for cows given hay and cottonseed meal-salt in the winter feeding period was $29.61 per cow, compared with $40.12 for cows fed Vita-Ferm and grass hay during the winter feeding period (Table 2). The cost of feeding Vita-Ferm during the summer grazing period was $19.93 per cow. Therefore, total feed cost per cow for the control group was $29.61, compared with $60.05 for those given access to Vita-Ferm from December 18 through October 16 (Table 2). The additional 87 lbs of gain by cows given Vita-Ferm would not have covered the cost of the supplement at cow prices below 35 cent per pound.

Calf performance as measured by weaning weight, average daily gain, type score, and condition score, was not influenced by feeding Vita-Ferm (Table 3). Generally the calf is the only product sold and there was no advantage for the inclusion of Vita-Ferm during the winter feeding and summer grazing periods.

Study 2: Digestion Trial 1---There were no differences ($P < .01$) in DDM, DE or EDC values for steers fed gin trash or gin trash plus *A. oryzae* diets (Table 4). These results are in agreement with Theurer *et al.* (1959), Burroughs *et al.* (1960) and Tillman (1960) who reported that the addition of enzymes to a diet had no effect on the

Table 2. Performance, Feed Consumption and Feed Costs of 39 Bred Beef Cows on Winter Feeding Supplemented with Cottonseed Meal-Salt or Vita-Ferm®6-2-2 Followed By Summer Grazing with no Supplement or with Vita-Ferm Cow-Calf Supplement, MAFES Brown Loam Branch, Winter 1973-74 and Spring-Summer 1974.

Item	Period and supplement					
	Winter 12/18/73 to 4/5/74		Spring-summer 4/5 to 10/16/74		Winter and spring-summer 12/18/73 to 10/16/74	
	CSM-salt[1]	Vita-Ferm[1]	None	Vita-Ferm[1]	CSM-salt	Vita-Ferm
Cows per treatment, no.	19	20	19	20	19	20
Days, no.	108	108	194	194	302	302
Avg initial wt, lb.	930	933	874	868	930	933
Avg final wt, lb.	874	868	997	1087	997	1086
Avg wt change, lb.	-56a	-65a	123a	219b	67a	154b
Avg initial condition score[2]	9.4	9.4	—	—	—	—
Avg final condition score[2]	8.6a	9.3b	—	—	—	—
Avg daily ration, lb.						
Bermudagrass hay	17.91	17.83	—	—	17.91	17.83
CSM-salt (76-24)	1.68	—	—	—	1.68	—
Vita-Ferm 6-2-2	—	1.31	—	—	—	1.31
Vita-Ferm cow-calf supplement	—	0.467	—	0.467	—	0.467
Total feed cost/cow, $[3]	29.61	40.12	—	19.93	29.61	60.05

[1]CSM-salt (76% CSM to 24% salt) fed only in wintering period, Vita-Ferm 6-2-2 fed 12/18/73 to 3/07/74, Vita-Ferm cow-calf supplement fed from 3/08/74 to 10/16/74.

[2]Condition score: extremely fat, 16; above average, 13; average, 10; below average, 7; extremely thin, 4.

[3]Feed prices: grass hay, $30 ton; cottonseed meal, $155/ton; salt, $34/ton; Vita-Ferm 6-2-2, $310/ton; Vita-Ferm cow-calf supplement, $440/ton.

a,b,Means in a row for each period followed by a different letter differ (P <.01).

gestibility of dry matter, organic atter and cellulose. DDM, DE and DC values for steers fed gin trash and gin trash plus Vita-Ferm were higher (P < .05) than values for steers fed pelleted gin trash. These results are in agreement with researchers who have reported lower digestibility values for

Table 3. Performance of Calves from 39 Cows on Winter Feeding Supplemented with Cottonseed Meal-Salt or Vita-Ferm®6-2-2, Followed By Summer Grazing with No Supplement or with Vita-Ferm Cow-Calf Supplement, MAFES Brown Loam Branch, Winter 1973-74 and Spring-Summer 1974.

Item	Supplement[1]	
	Winter: CSM-salt Summer: None	Winter: Vita-Ferm 6-2-2 Summer: Vita-Ferm cow-calf supplement
Calves, no.	19	20
Birth wt, lb.	68.9	72.2
Weaning wt, lb.	379	387
ADG, birth to weaning, lb.	1.28	1.29
Wt per day age, lb.	1.56	1.59
Avg age at weaning, days	251	245
Type score at weaning[a]	11.8	12.0
Condition score at weaning[b]	9.68	10.1

[1]See table 2 for supplement regimes.

aType score: avg good, 10; high good, 11; low choice, 12.

bCondition score: below avg, 7; avg, 10; above avg, 13.

pelleted hay than for non-pelleted hay (Reynolds and Lindahl, 1960; Johnson *et al.*, 1964).

There were no significant differences ($P < .05$) in nitrogen retention per gram of feed consumed or nitrogen retention percent for steers fed gin trash or gin trash plus *A. oryzae* diets (Table 4). These results are in agreement with Theurer *et al.* (1959), Tillman (1960) and Theurer (1960) who indicated that supplementation with enzymes had no effect on nitrogen retention in cattle. Nitrogen retention values for steers fed gin trash plus *A. oryzae*, although not significant, were larger than the other two treatments. Nitrogen retention values were lower ($P < .05$) for steers fed pelleted gin trash than for those fed the other two experimental diets. These results agree with the work of Esplin *et al.* (1957) and Jentseh *et al* (1971) who reported that pelleted rations lowered nitrogen retention.

IVDMD values were not different ($P < .05$) for the experimental diets (Table 4). These results are in general agreement with the work of Bowden and Church (1959) who, in a series of *in vitro* experiments, reported that enzyme additions failed to increase cellulose digestion. Johnson *et al.* (1964) reported no difference in IVDMD values for pelleted and unpelleted hay rations. They further stated that, when rate of passage of pelleted feedstuffs was controlled as in the *in vitro* procedure, dry matter disappearance was similar to that of non-pelleted feedstuffs.

There were differences ($P < .05$) in change of rumen fluid acetic acid concentration at two hr post-feeding due to experimental diets (Table 5). Rumen fluid acetic acid concentration changed negativ for steers fed gin trash plus *oryzae*. Steers fed pelleted gin tra had the largest increase in rum fluid acetic acid concentrati change at two hr postfeedi Values of concentration chan for steers fed gin trash plus *oryzae* decreased ($P < .05$). Johns and Dyer (1964) indicated that use of enzymes in cattle ratio tended to lower rumen fluid V concentrations. Slightly hig positive changes in concentrat of rumen fluid acetic acid at t

Table 4. Digestible Dry Matter (DDM), Digestible Energy (DE), Energy Digestion Coefficient (EDC), Nitrogen Retention (NR), and IVDMD Values of Gin Trash, Pelleted Gin Trash and Gin Trash Plus Vita-Ferm®6-2-2 Fed to 18 Steers, Mississippi State University, 1974.

	Diet		
Item	Gin trash	Pelleted gin trash	Gin trash plus Vita-Ferm 6-2-2
DDM, %	55.81a	48.88b	53.14a
DE, kcal/kg	2373a	1943b	2227a
EDC, %	54.95a	47.14b	52.17a
NR, %	42.26a	31.81b	44.68a
Mg N/g feed	6.77a	5.00b	7.64a
IVDMD, %	55.04a	54.94a	56.23a

a,bMeans in the same row not followed by a common letter differ significantly ($P < .05$).

Table 5. Change in Volatile Fatty Acid (VFA) Content of Rumen Fluid Taken at Two and Four Hours Post-Feeding From 18 Steers Fed Gin Trash, Pelleted Gin Trash and Gin Trash Plus Vita-Ferm®6-2-2, Mississippi State University, 1974.

		Change in VFA concentration					
Diet	Sampling time	Acetic	Propionic	Butyric	Isovaleric	Valeric	TVFA
				mM/liter			
Gin trash	2 hr	6.72a	.12	-.09	-.03	.01	7.48
	4 hr	10.06a	.49	.98	.8	.06	11.77
Pelleted gin trash	2 hr	9.60a	.96	-.64	-.06	-.05	11.52
	4 hr	12.63a	.28	-.03	-.03	-.03	12.82
Gin trash plus Vita-Ferm 6-2-2	2 hr	-9.45b	-2.63	-.05	.03	.02	-7.09
	4 hr	-12.85b	-3.25	-.99	.03	.01	-17.07

a,bMeans in the same column not followed by a common letter differ significantly ($P < .05$)

nd four hr postfeeding for steers
ed pelleted gin trash are in agree-
ient with Kromann and Meyer
972) who reported greater concen-
rations of VFA in the ingesta of
heep fed finely ground or pelleted
oughage diets. Also, there was a
reatment difference ($P < .05$) in
umen fluid acetic acid concentra-
on change at four hr postfeeding.
hanges in the four-hr concentra-
on of rumen fluid acetic acid from
teers fed gin trash and pelleted gin
rash did not differ significantly
$P < .05$); however, changes in
alues of rumen fluid from steers
ed pelleted gin trash appeared to
e larger at two and four hr, which
ight be indicative of the larger
DM, DE and EDC values
reviously discussed.

There were no differences ($P < .05$) in the two or four hr rumen luid concentration changes of ropionic, butyric, isovaleric, aleric and TVFA. The addition of *A. oryzae* in general appeared to lecrease propionic and butyric acid oncentration change in rumen luid at the two- and four-hr ostfeeding sampling. This is in greement with Johnson and Dyer 1964) who indicated that the use of nzymes in cattle diets tended to lower VFA concentration.

Table 6. Digestible Dry Matter (DDM), Digestible Energy (DE), Energy Digestion Coefficient (EDC), Nitrogen Retention (NR), and IVDMD Values of Cottonseed Hulls-Cottonseed Meal, Cottonseed Hulls-Cottonseed Meal Plus Cottonseed Meal and Cottonseed Hulls-Cottonseed Meal Plus Vita-Ferm® 6-2-2 Fed to 18 Steers, Mississippi State University, 1974.

	Diet		
Item	Basal	Basal plus CSM	Basal plus Vita-Ferm 6-2-2
DDM, %	47.82	45.58	43.05
DE, kcal/kg	2097	2008	1840
EDC, %	46.79	44.54	41.60
NR, %	41.28	44.86	42.15
Mg N/g feed	7.68	9.54	8.26
IVDMD, %	47.96	53.53	48.99

Values were not significantly different ($P < .05$)

Study 2: Digestion Trial 2--- There were no differences ($P < .05$) in DDM, DE and EDC values among steers fed three dietary treatments (Table 6). These results are in agreement with Theurer *et al.* (1959), Burroughs *et al.* (1960) and Tillman (1960), who reported that supplementing diets with enzymes had no effect on the digestibility of dry matter, organic matter and cellulose. Steers fed the CSH-CSM basal diet appeared to have higher DDM, DE and EDC values than those fed the other dietary treatments.

There were no differences ($P < .05$) for nitrogen retention per gram of feed consumed or nitrogen retention percent between steers fed the three experimental diets (Table 6). Nitrogen retention values for steers fed the basal diet

Table 7. Change in Volatile Fatty Acid (VFA) Content of Rumen Fluid Taken at Two and Four Hours Post-Feeding From 18 Steers Fed Cottonseed Hulls-Cottonseed Meal, Cottonseed Hulls-Cottonseed Meal Plus Cottonseed Meal and Cottonseed Hulls-Cottonseed Meal Plus Vita-Ferm® 6-2-2, Mississippi State University, 1974.

		Change in VFA concentration					
Diet	Sampling time	Acetic	Propionic	Butyric	Isovaleric	Valeric	TVFA
				mM/liter			
Basal	2 hr	6.460	.501	1.490	-.030	-.003	9.510
	4 hr	2.301	-1.748	.811	-.014	.007	1.390
Basal plus CSM	2 hr	6.400	2.910	3.710	.029	.010	13.840
	4 hr	4.735	2.500	2.013	.010	-.031	9.231
Basal plus Vita-Ferm 6-2-2	2 hr	8.320	2.160	1.540	-.030	-.010	11.700
	4 hr	8.688	1.268	.426	-.054	-.004	10.330

Values were not significantly different ($P < .05$).

appeared to be lowest, while steers fed the cottonseed meal-supplemented diet appeared to have retained the most nitrogen. These results are in agreement with Theurer *et al.* (1959), Tillman (1960) and Theurer (1960), who indicated that supplementation with enzymes had no effect on nitrogen retention. In general, supplementation of the CSH-CSM basal ration with CSM or *A. oryzae* had no effect on nitrogen retention per gram of feed consumed or nitrogen retention percent.

IVDMD values were not different ($P < .05$) for the three dietary treatments (Table 6). These results are in agreement with the work of Bowden and Church (1959), who, in a series of *in vitro* experiments, observed that the addition of enzymes failed to increase cellulose digestion.

There were no significant differences in change of acetic, propionic, butyric, isovaleric, valeric or TVFA concentration of rumen fluid at two- or four-hr postfeeding due to experimental diets (Table 7). These results ag with the work of Yang *et al.* (19 and Rust *et al.* (1965), who repor no significant differences in V concentration changes due to zyme supplementation. The tre of VFA changes was larg positive. This agrees with Shep *et. al.* (1958) and Stewart *et.* (1958) who indicated that V concentration increased af feeding and decreased four to six later.

SUMMARY

There was no difference in weight change of cows fed bermudagrass hay and cottonseed meal or bermudagrass hay and Vita-Ferm 6-2-2 during the winter feeding period. When Vita-Ferm cow-calf supplement was fed to cows during the summer grazing period and, when these cows were placed on a bermuda-fescue-clover pasture six weeks before weaning of the calves, there was a significant difference in weight change when compared with the treatment group that remained on bermudagrass without supplement. The total feeding cost per cow from December 18 to October 16 was $30.44 more for the cows fed Vita-Ferm than for those cows given cottonseed meal during the winter and no protein during the summer.

There were no differences in weaning weight, birth weight, average weight per day of age, type score and weaning condition for calves from cows given either the control treatment or those given the Vita-Ferm treatment.

No differences ($P < .05$) were detected in energy digestion coefficients (EDC), digestible energy (DE), digestible dry matter (DDM), nitrogen retention (NR) or IVDMD values due to the addition of *A. oryzae* to gin trash. EDC, DE, DDM and NR values were lower ($P < .05$) for steers fed pelleted gin trash than for those fed non-pelleted gin trash. There were no significant differences in EDC, DE, DDM and NR values due to additives (cottonseed meal or *A. oryzae*) to the basal CSH-CSM diets fed to steers during Digestion Trial 2. In Dige tion Trial 1 VFA concentrations rumen fluid except acetate at tw and four-hr samplings were n different due to diets. Acetic a concentration change was low ($P < .05$) in rumen fluid of steers f gin trash plus *A. oryzae* than steers fed only gin trash. Additi of *A. oryzae* appeared to lower t total VFA concentration in t rumen fluid. No significa differences were detected in rum fluid VFA concentration due experimental diets in Digesti Trial 2. *In vitro* dry matter d appearance values for experime tal diets did not differ ($P < .05$) either Digestion Trial 1 or Dige tion Trial 2.

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BUDGETS FOR MAJOR CROPS, MISSISSIPPI DELTA, 1977

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FOREWORD

Data presented in this report were developed to support research by the Department of Agricultural Economics, Mississippi Agricultural and Forestry Experiment Station and the Commodity Economics Division, Economic Research Service, USDA and to provide others with current information on production practices and costs associated with various agricultural enterprises.

This report updates Bulletin 843, "Cost of Production Estimates For Major Crops, Mississippi Delta, 1976" [8]. Users interested in data collection procedures and budget estimation techniques are referred to earlier publications [1, 2, 3, 8].

Readers are cautioned that costs presented are labeled "Total Specified Costs". Charges for land, management, and general farm overhead are *not* included. Farmers should make 1977 plan ing decisions based on "return above direct expenses". This wou be a one-year short run decisio Long run decisions must be bas upon returns above total expens Total expenses include both dire and fixed expenses (estimated this publication) plus all oth expenses such as land, mana ment, and general farm overhea

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BUDGETS FOR MAJOR CROPS, MISSISSIPPI DELTA, 1977

INTRODUCTION

This publication provides information on production practices and costs for selected crops grown in the Delta of Mississippi. Current production practices and costs of the more important agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and other workers in agriculture. This publication is one of a series of recent publications (3, 4, 5, 6, 7, 8, 9) dealing with the costs of crop production in Mississippi.

ENTERPRISE BUDGETS

Each budget lists and describes all operations used to produce the crop. If an operation is followed by a times sign and a whole number (such as X2), it is repeated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "apply lime X1/6", means that lime would be applied every 6 years, and the listed costs are one-sixth of total cost for that operation. The month the operation usually is performed is indicated along with labor costs, direct and fixed tractor and equipment costs, materials costs, and miscellaneous costs.

Labor is charged at a rate of $2.30 per hour. A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interest charges on operating capital are for the period of time used and not for the whole year. Costs for self-propelled harvesting equipment appear under equipment costs. Miscellaneous costs include charges for custom services, hauling costs, ginning, drying, and storage costs where appropriate.

Tractor and machinery prices and related data are included in Table 1; prices for chemicals, planting seed, fertilizers and other materials in Tables 2 and 3; and charges for aerial application in Table 4.[1]

These budgets do not include such items as taxes, insurance, drainage, bookkeeping, pickup truck expenses, land rent charges, management, or other overhead expenses. The 115-150 DBHP[2] 2-wheel drive tractor is the prime power source assumed for *all* budgets.

Interpretation of the per acre cost estimates summarized in this report requires the definition of two terms. "Usual input practices" describe the practices most commonly used by the farmers in this area. This set of practices would more nearly describe the modal rather than the mean situation. The term, "limited seedbed preparation", implies fewer trips than usual over the field for seedbed preparation. In addition, the "limited seedbed preparation" budgets assume input levels that are generally lower than usual.

Each budget is summarized in two budget tables. For example, Tables 5 and 6 are a set.[3] The first table of each set reports estimated cost per acre on an operation by operation basis. The figures in the body of these tables are dollars. These tables allow the user to take a quick look at the cost of producing a crop on an operation by operation basis.

The second table of each set of individual budgets reports estimated income and includes the quantity and price of each input used. By referring to the second table of each set the reader can determine the type of fertilizer, the price, the quantity applied, etc.

Machinery charges are divided into three categories---special

[1] *For convenience all tables are placed after the text.*

[2] *Drawbar horsepower, Nebraska rating.*

[3] *Tables 5 and 6 contain summaries of individual crop budgets (Table 7-41).*

equipment, equipment and tractor. Special equipment refers to self-propelled equipment; i.e., combines, cotton pickers and high clearance sprayers. Equipment refers to towed equipment. Labor also is divided into three categories. Operator labor denotes tractor driver labor. Special labo refers to driver time for sel propelled equipment and commo labor is all other labor.

Cotton

Cotton production practices in the Mississippi Delta include seedbed preparation, planting, weed control, insect control, and harvesting. Seedbed preparation usually begins at the end of the previous year's harvesting season and continues up to the planting date. Deep tillage is done in the fall when possible. Most farmers intensify their seedbed preparation in February, March, and early April. This is generally limited only by prevailing weather and soil type. Planting dates vary from the north to the south Delta, but generally extend from April 15 through May 15.

Usual input practices

Solid, Sandy Soil---Solid planted cotton in the Mississippi Delta is planted on row centers 38 or 40 inches wide. Budgets for solid planted cotton are reported in Tables 7-10.

Solid, Clay Soil---Unless cotton follows an early maturing soybean variety grown in the previous crop season, days available for fieldwork on clay soils are a serious restriction on fall seedbed preparation procedures. Since more operations are used for spring seedbed preparation than for fall preparation, greater tractor, equipment, and labor costs are incurred. Budgets for solid-planted cotton grown on clay soils are included in Tables 11-14.

Skip-Row---Cost data are included for the "2 X 1" skip-row planting pattern, the most common skip-row pattern currently used in the area. Production costs associated with "2 X 1" skip-row are reported on a "land-basis".

To obtain one acre of cotton when using the "2 X 1" planting pattern, one and one-half acres of land are required. This has been traditionally referred to as a "planted acre" of cotton and is generally referred to as "planted basis". With the removal of allotments for cotton, there is a need to look at cost and returns associated with "2 X 1" planting patterns from one acre of land. For this pattern, one acre of land is used to produce 0.67 acre of planted cotton and is designated: "2 X 1" planting pattern "land basis". Tables 15-18 indicate per acre production costs for this planting pattern.

Limited Seedbed Preparation

Solid---Budgets for solid plante cotton, limited seedbed preparatio are reported in Tables 19-22.

All limited seedbed preparatio budgets presented assume that th producer uses more efficie production practices throughou the production period.

Skip Row---Estimated per ac costs of producing "2 X 1" cott sandy soil, limited seedbe preparation, are summarized i Tables 23-26.

Stoneville Widebed---Th narrow-skip or Stoneville wideb planting pattern has emerged the second most popular skip-ro planting pattern in the Mississip Delta. The traditional "2 X 1" ski row planting pattern has an inch skip alternating with t conventional 40-inch rows wh the narrow-skip planting patte has approximately a 60-inch sk alternating with two conventio 40-inch rows. Tables 27-28 rep per acre production cost when t narrow-skip planting pattern i used in conjunction with limit tillage technology.

Rice

Rice production practices in Mississippi include seedbed preparation, planting, establishing levees, weed control, flooding, fertilizing, applying herbicides, tending water, draining, and harvesting. When possible, disking levees down in the fall is followed by a once-over disking of the entire field. However, weather usually prohibits these activities until the following April. Recommended planting dat range from April 15 to June depending upon variety. Tables 30 report per acre production co for rice.

Soybeans

Soybeans normally are planted from May 10 to June 15. Varieties have been developed to permit some variability in both planting dates and harvesting dates. The crop is adapted to a wide range of soil types and conditions, and meshes well into overall farm organization in the Delta.

Planted on Sandy Soils.

Total specified costs includi

terest on operating capital are pproximately $223 less per acre an for cotton planted solid. This fference arises from the larger antities of operating capital cessary to supply production puts for cotton. Soybean budgets r sandy soils are presented in Tables 31-34.

Planted on Clay Soils.

Budgets for soybeans produced on the heavier-textured soils are contained in Tables 35-38. The major difference between these budgets and the sandy soil budgets is the use of an incorporated herbicide in all clay soil budgets. Total specified costs including interest on operating capital are approximately $205 lower than for cotton planted solid on clay soils.

Wheat For Grain

nputs and costs associated with oducing one acre of wheat are esented in Tables 39-40. This budget also applies to oat production except that adjustments are needed to compensate for differences in seed price and cost of hauling.

Fallow

Some fields are fallowed in the Mississippi Delta in most years. his is usually done to reduce vere perennial weed infestations, particularly Johnsongrass. Inputs for fallowing vary from year to year because of variable rainfall. Inputs required for one year of fallow are shown in Table 41. This practice should reduce grass and weed problems in subsequent years if rainfall is not excessive.

SPECIFIED COSTS AND NET RETURNS

Ranges of total specified costs ncluding interest on operating pital) are:

otton

$206.90 for 2 X 1 planting ttern, "limited seedbed prepara-n", sandy soil and 8-row equip-nt to $277.02 for solid planting ttern, "usual input practices", ndy soil and 6-row equipment able 5), and

ybeans

$46.90 for "usual input practices", 8-row equipment on sandy soil to $56.55 for "usual input practices", 6-row equipment on clay soil.

Total specified cost of producing an acre of rice is $222.79; an acre of wheat, $64.25.

Net returns (returns to land, management and farm overhead) per acre are summarized in Table 6. For example, soybeans planted on clay soil with 6-row equipment, yielding 23 bushels and selling for $6.50 should result in returns above specified expenses of $92.95. A 30-bushel per acre wheat crop selling at $3.25 per bushel yields an estimated net return of $33.25.

Other combinations of yields and prices result in significantly different net returns; for example, an 18-bushel bean crop produced with 8-row equipment on clay soil with "usual input practices" will result in an estimated net return of $44.53 per acre if beans sell for $5.50, a net return of $80.53 if beans sell for $7.50 (Table 6).

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Table 1. Estimated power and machinery performance rates, estimated life, purchase price, repair cost, and direct and fixed costs per hour and per acre, Mississippi Delta, 1977.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1977 price	Repair costs % of new cost	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent	Dollars		Dollars	
Tractor	90-100		12	700	15,700	65	2.45	--	2.88	--
Tractor	100-115		12	700	16,800	55	2.43	--	3.08	--
Tractor	115-150		12	700	19,800	52	3.00	--	3.63	--
Tractor	>150		12	700	24,400	49	3.64	--	4.47	--
Tractor (4-wheel drive)	<200		12	700	34,800	49	4.47	--	6.38	--
Tractor (4-wheel drive)	>200		12	700	41,800	49	5.54	--	7.66	--
Stalk shredder	2-row	.30	10	185	885	40	.19	.06	.69	.21
Stalk shredder	4-row	.24	10	185	2,710	40	.59	.14	2.12	.51
Subsoiler	2-row	.62	15	100	650	100	.43	.27	.73	.45
Subsoiler	3-row	.52	15	100	1,050	100	.71	.37	1.18	.62
Deep chisel	7-shank	.45	15	100	1,355	100	.90	.41	1.51	.68
Deep chisel	11-shank	.40	15	100	2,240	100	1.49	.60	2.50	1.00
Chisel plow	16 ft.	.22	12	150	1,885	70	.73	.16	1.61	.35
Chisel plow	21 ft.	.14	12	150	2,945	70	1.15	.16	2.52	.35
Middle breaker	6-row	.14	12	160	2,355	80	.98	.14	1.89	.26
Middle breaker	8-row	.11	12	160	2,945	80	1.23	.13	2.36	.26
Moldboard plow (2 way)	4-bottom	.30	15	120	3,060	80	1.36	.41	2.85	.85
Disk harrow	21 ft.	.14	10	180	5,890	80	2.62	.37	4.74	.66
Disk harrow	28 ft.	.10	10	180	8,240	80	3.66	.37	6.64	.66
Section harrow	6-row	.10	10	200	885	75	.33	.03	.64	.06
Section harrow	8-row	.08	10	200	1,120	75	.42	.03	.81	.06
Soil pulverizer	6-row	.15	10	100	3,300	75	2.47	.37	4.78	.72
Soil pulverizer	8-row	.12	10	100	5,005	75	3.75	.45	7.26	.87
Field cultivator	21 ft.	.10	10	100	2,290	65	1.49	.15	3.32	.33
Field cultivator	42 ft.	.06	10	100	5,315	70	3.72	.22	7.71	.46
Spin spreader	--	.10	8	100	765	80	.76	.08	1.30	.13
Disk bedder	6-row	.13	8	160	2,120	80	1.32	.17	2.25	.29
Disk bedder	8-row	.10	8	160	2,710	80	1.69	.17	2.88	.29
Disk bedder & fertilizer	6-row	.16	8	160	2,530	80	1.58	.25	2.69	.43
Disk bedder & fertilizer	8-row	.12	8	160	3,240	80	2.02	.24	3.44	.41
Liquid fertilizer applicator	6-row	.12	8	150	3,210	80	2.14	.26	3.64	.44
Liquid fertilizer applicator	8-row	.08	8	150	3,640	80	2.43	.19	4.13	.33
Grain drill	12 ft.	.24	10	100	2,825	70	1.98	.47	4.10	.98
Grain drill	32 ft.	.09	10	100	8,950	75	6.71	.60	12.98	1.17
Planter + preemerge rig--cotton	6-row	.18	12	150	5,890	70	2.29	.41	5.04	.91
Planter + preemerge rig--cotton	8-row	.12	12	150	7,650	70	2.97	.36	6.54	.79
Planter	6-row	.14	12	150	5,300	70	2.06	.29	4.53	.63
Planter	8-row	.10	12	150	7,065	70	2.75	.27	6.04	.60
Cultivator-early	6-row	.21	12	200	2,945	80	.98	.21	1.89	.40
Cultivator-early	8-row	.16	12	200	4,710	80	1.57	.25	3.02	.48
Cultivator-late	6-row	.14	12	200	2,945	80	.98	.14	1.89	.26
Cultivator-late	8-row	.10	12	200	4,710	80	1.57	.16	3.02	.30
Cultivator + postemerge rig-early	6-row	.24	12	200	3,885	80	1.29	.31	2.49	.60
Cultivator + postemerge rig-early	8-row	.18	12	200	5,890	80	1.96	.35	3.78	.68
Cultivator + postemerge rig-late	6-row	.18	12	200	3,885	80	1.29	.23	2.49	.45
Cultivator + postemerge rig-late	8-row	.13	12	200	5,890	80	1.96	.26	3.78	.49
Sprayer-tractor mounted	21 ft.	.18	8	200	1,120	100	.70	.13	.95	.17
Sprayer-high clearance	14-row	.08	8	350	9,560	80	3.62	.29	4.64	.37
Cotton picker-first picking	2-row	.75	10	200	42,900	75	18.17	13.62	31.10	23.33
Cotton picker-second picking	2-row	.55	10	200	42,900	75	18.17	9.99	31.10	17.11
Combine - soybean/wheat	20 ft.	.23	8	300	35,800	80	13.27	3.05	20.29	4.67
Combine - rice	16 ft.	.75	8	300	46,700	80	17.80	13.35	26.46	19.85
Combine - corn	4-row	.45	8	300	36,900	80	13.64	6.14	20.91	9.41
Grain cart	--	.48	12	200	2,885	80	.96	.46	1.85	.89
Levee plow	--	.05	10	100	1,530	80	1.22	.06	2.22	.11
Blade-tractor mounted	--	.12	10	100	1,530	60	.92	.11	2.22	.27
Pipe	30 ft.	.10	12	100	825	45	.31	.03	1.06	.11

Table 2. Estimated materials prices, Delta area of Mississippi, 1977.

Item	Unit[1/]	Estimated price
		Dollars
Defoliant:		
Def	lb.	1.67
Folex	lb.	1.67
Sodium chlorate	lb.	.48
Herbicides:		
Amiben	lb.	5.47
Atrazine	lb.	3.41
Basagran	lb.	13.78
Caparol (WP)	lb.	3.89
Caparol + MSMA	pt.	1.28
Cotoran	lb.	5.79
2,4-D	lb.	1.89
Dowpon	lb.	1.69
DSMA	lb.	1.00
Dyanap	pt.	.75
Glytac	lb.	1.24
Karmex (DL)	lb.	4.11
Karmex (WP)	lb.	3.25
Lasso	lb.	3.56
Lorox	lb.	6.60
MSMA	lb.	.84
MSMA + Surfactant	pt.	.80
Ordram	lb.	3.10
Paraquat	lb.	17.10
Prefar	lb.	3.62
Probe	lb.	9.67
Propanil	lb.	2.28
Propazine	lb.	3.73
Sencor	lb.	12.16
Surfactant	pt.	.49
Dinitro	lb.	1.83
Tenoran	lb.	5.96
Treflan	lb.	6.19
2,4,5-T	lb	4.04
Fungicides:		
Soil Treater XXX	lb.	1.15
Stauffer 30-30	lb.	1.15
Insecticides:		
Azodrin	lb.	4.20
Bidrin	lb.	4.50
Cygon 267	lb.	4.36
Disyston	lb.	3.67
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	.97
Furadan	lb.	9.17
Guthion	lb.	5.02
Lannate	lb.	8.31
Methyl parathion	lb.	1.62
Sevin	lb.	2.26
Temik	lb.	11.47
Toxaphene	lb.	.66
Toxaphene + Methyl parathion	pt.	.97
Lo-Drift	pt.	1.74

[1/] Expressed on a per pound active basis except for materials priced in volume and fungicides which are priced on a basis of formulated material.

Table 3. Estimated seed, fertilizer, and lime prices, Delta area of Mississippi, 1977.

Item	Unit	Estimated price
		Dollars
Seed:		
Alfalfa	lb.	1.25
Corn	lb.	.55
Cotton, Triple treated	lb.	.27
Grain sorghum	lb.	.25
Oat	lb.	.05
Soybean	lb.	.15
Wheat	lb.	.10
Rice	lb.	.12
Fertilizer:		
0-24-24	cwt.	7.00
8-24-24	cwt.	7.75
13-13-13	cwt.	6.60
Ammonium nitrate, 33%	cwt.	6.35
Anhydrous ammonia, 82%	cwt.	7.50
Urea, solid	cwt.	7.15
Lime	ton	13.50

Table 4. Summary of aerial application costs, Delta area of Mississippi, 1977.

Application activity	Cost per acre	Cost per 100 pounds
	Dollars	Dollars
Fertilizer	---	2.25
Insecticide	.95	---
Lannate	1.65	---
Defoliate	1.65	---
Seed	---	2.25
Herbicide	1.65	---
2,4-D	3.50	---
2,4,5-T	3.50	---
Propanil	2.50	---
Ordran	1.30	---

Table 5. Summary of estimated cost per acre for cotton, rice, soybeans, and wheat, Mississippi Delta, 1977.

Crop	Soil type	Cultural practices	Equipment size	Tractor		Equipment		Labor cost	Material cost	Misc. cost	specified cost	Interest on operating cost	Total cost
				Direct cost	Fixed cost	Direct cost	Fixed cost						
				dollars									
Cotton-usual input practices	Sandy	Solid	6-row	9.06	10.93	25.20	44.15	22.74	72.50	86.97	271.56	5.47	277.02
Cotton-usual input practices	Sandy	Solid	8-row	7.51	9.06	25.35	44.37	21.40	72.50	86.97	267.16	5.39	272.56
Cotton-usual input practices	Clay	Solid	6-row	8.46	10.21	25.16	43.90	22.28	84.78	63.81	258.59	5.33	263.92
Cotton-usual input practices	Clay	Solid	8-row	7.06	8.52	25.39	44.28	21.05	84.78	63.81	254.88	5.23	260.11
Cotton-usual input practices	Sandy	2 x 1	6-row	8.82	10.65	19.82	34.91	18.11	61.91	79.03	233.24	4.75	237.99
Cotton-usual input practices	Sandy	2 x 1	8-row	6.88	8.31	19.69	34.57	16.44	61.91	79.03	226.83	4.57	231.40
Cotton-limited seedbed preparation	Sandy	Solid	6-row	7.80	9.41	23.88	41.50	19.45	58.19	89.40	249.63	4.74	254.36
Cotton-limited seedbed preparation	Sandy	Solid	8-row	6.40	7.72	24.00	41.68	18.23	58.19	89.40	245.61	4.63	250.24
Cotton-limited seedbed preparation	Sandy	2 x 1	6-row	7.56	9.12	17.32	30.24	15.28	48.27	81.00	208.78	4.04	212.83
Cotton-limited seedbed preparation	Sandy	2 x 1	8-row	5.82	7.02	17.18	29.91	13.76	48.27	81.00	202.96	3.94	206.90
Cotton-limited seedbed preparation	Sandy	SWB[1/]	8-row	6.49	7.83	20.38	35.49	17.79	52.15	86.75	226.89	4.32	231.20
Rice-usual input practices	Clay	--	115-150 DBHP	6.22	7.77	51.33	54.88	15.41	58.68	21.62	215.90	6.89	222.79
Soybeans-usual input practices	Sandy	Solid	6-row	5.52	6.68	5.65	9.80	5.40	14.09	.68	47.82	1.29	49.11
Soybeans-usual input practices	Sandy	Solid	8-row	4.67	5.65	5.82	10.12	4.65	14.09	.68	45.67	1.23	46.90
Soybeans-usual input practices	Clay	Solid	6-row	4.95	5.99	6.05	10.46	4.96	20.19	2.36	54.96	1.59	56.55
Soybeans-usual input practices	Clay	8-row	8-row	4.19	5.07	6.22	10.78	4.28	20.19	2.36	53.08	1.54	54.62
Wheat	All soils	--	115-150 DBHP	3.09	3.74	5.02	8.54	3.91	27.92	10.03	62.24	2.01	64.25
Fallow	All soils	--	115-150 DBHP	3.84	4.65	2.54	4.66	2.94	0.00	0.00	18.63	1.26	19.89

[1/] Stoneville wide bed.

Table 6. Estimated returns to land, management, and farm overhead per acre for selected crops by planting pattern, equipment size and soil type for specified yields and prices, Mississippi Delta, 1977.

Crop	Soil type	Cultural practices	Equipment size	Yield	Price levels[1/] Low	Expected	High
Cotton-usual input practices	Sandy	Solid	6-row	680 lb. lint	123.30	201.84	280.38
				730 lb. lint	147.86	232.18	316.50
				780 lb. lint	172.37	262.46	352.55
Cotton-usual input practices	Sandy	Solid	8-row	680 lb. lint	127.77	206.31	284.85
				730 lb. lint	152.32	236.64	320.96
				780 lb. lint	176.84	266.93	357.02
Cotton-usual input practices	Clay	Solid	6-row	500 lb. lint	31.64	89.39	147.14
				550 lb. lint	56.20	119.73	183.26
				600 lb. lint	80.71	150.01	219.31
Cotton-usual input practices	Clay	Solid	8-row	500 lb. lint	35.46	93.21	150.96
				550 lb. lint	60.01	123.54	187.07
				600 lb. lint	84.52	153.82	223.12
Cotton-usual input practices	Sandy	2 x 1	6-row	593 lb. lint	111.70	180.19	248.68
				643 lb. lint	136.25	210.52	284.79
				693 lb. lint	160.76	240.80	320.84
Cotton-usual input practices	Sandy	2 x 1	8-row	593 lb. lint	118.28	186.77	255.26
				643 lb. lint	142.84	217.11	291.38
				693 lb. lint	167.35	247.39	327.43
Cotton-limited seedbed preparation	Sandy	Solid	6-row	717 lb. lint	167.49	250.30	333.11
				767 lb. lint	192.04	280.63	369.22
				817 lb. lint	216.55	310.91	405.27
Cotton-limited seedbed preparation	Sandy	Solid	8-row	717 lb. lint	171.61	254.42	337.23
				767 lb. lint	196.16	284.75	373.34
				817 lb. lint	220.68	315.04	409.40
Cotton-limited seedbed preparation	Sandy	2 x 1	6-row	625 lb. lint	155.50	227.69	299.88
				675 lb. lint	180.01	257.97	335.93
				725 lb. lint	204.57	288.31	372.05
Cotton-limited seedbed preparation	Sandy	2 x 1	8-row	625 lb. lint	161.43	233.62	305.81
				675 lb. lint	185.94	263.90	341.86
				725 lb. lint	210.49	294.23	377.97
Cotton-limited seedbed preparation	Sandy	SWB[2/]	8-row	688 lb. lint	173.76	253.22	332.68
				738 lb. lint	198.32	283.56	368.80
				788 lb. lint	222.83	313.84	404.85
Rice-usual input practice	Clay	--	115-150 DBHP	90 bu.	38.36	69.86	114.86
				100 bu.	67.21	102.21	152.21
				110 bu.	96.05	134.55	189.55
Soybeans-usual input practices	Sandy	Solid	6-row	15 bu.	33.60	48.60	63.60
				22 bu.	71.89	93.89	115.89
				30 bu.	115.64	145.64	175.64
Soybeans-usual input practices	Sandy	Solid	8-row	15 bu.	35.81	50.81	65.81
				22 bu.	74.10	96.10	118.10
				30 bu.	117.85	147.85	177.85
Soybeans-usual input practices	Clay	Solid	6-row	18 bu.	42.60	60.60	78.60
				23 bu.	69.95	92.95	115.95
				32 bu.	119.17	151.17	183.17
Soybeans-usual input practices	Clay	Solid	8-row	18 bu.	44.53	62.53	80.53
				23 bu.	71.88	94.88	117.88
				32 bu.	121.10	153.10	185.10
Wheat	All soils	--	115-150 DBHP	25 bu.	4.64	17.14	29.64
				30 bu.	18.25	33.25	48.25
				35 bu.	31.87	49.37	66.87

[1/] Cotton: $.52, $.62, and $.72/lb. for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.52, $.62, and $.72 respectively. Rice: $2.90, $3.25 and $3.75/bu. for low, expected, and high price levels, respectively. Soybeans: $5.50, $6.50, and $7.50/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

[2/] Stoneville wide bed.

TABLE 7 .ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/3	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	3.09	.00	6.18
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	3	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.39	.47	.17	.29	.30	.00	.00	1.62
DISK BED + FERT	4	.48	.58	.25	.43	.37	9.15	.00	11.26
ROW CONDITION	5	.54	.65	.44	.86	.41	.00	.00	2.92
PLANT + PRE	5	.59	.72	.45	1.00	.91	13.33	.00	17.01
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.63	.76	.21	.40	.48	.00	.00	2.49
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	5	.72	.87	.31	.60	.55	.99	.00	4.05
CULT + POST EARLY	6	.72	.87	.31	.60	.55	3.17	.00	6.23
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	6	.54	.65	.23	.45	.41	3.17	.00	5.46
CULT + POST LATE	6	.54	.65	.23	.45	.41	1.51	.00	3.79
HAND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	7	.54	.65	.23	.45	.41	6.60	.00	8.89
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	6.63	6.63
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.66	1.66
GIN	10	.00	.00	.00	.00	.00	.00	58.40	58.40
TOTAL SPECIFIED COSTS		9.06	10.93	25.20	44.15	22.74	72.50	86.97	271.56
INTEREST ON OPERATING CAPITAL									5.47

ABLE 8.ESTIMATED COST AND NET RETURNS PER ACRE
OLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
ISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.62000	730.00	452.60
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				509.20
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.59	12.86
OPERATOR LABOR	HOUR	2.30	3.08	7.08
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	13.50	.50	6.72
TREFLAN	LB	6.19	.50	3.09
FERT ANHY AMMONIA	CWT	7.50	1.22	9.15
KARMEX (DL)	LB	4.11	.32	1.32
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	4.45	3.56
COTORAN	LB	5.79	.80	4.63
KARMEX (WP)	LB	3.25	.20	.65
LOROX	LB	6.60	1.00	6.60
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	4.29	1.00	4.29
TRACTOR	ACRE	9.06	1.00	9.06
INT ON OP CAP	ACRE	5.47	1.00	5.47
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				221.94
RETURNS ABOVE DIRECT EXPENSES				287.26
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	8.47	1.00	8.47
TRACTOR	ACRE	10.93	1.00	10.93
TOTAL FIXED EXPENSE				55.09
TOTAL SPECIFIED EXPENSES				277.02
NET RETURN				232.18

TABLE 9 .ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	3.09	.00	6.18
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	3	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
DISK BED + FERT	4	.36	.44	.24	.41	.28	9.15	.00	10.87
ROW CONDITION	5	.36	.44	.45	.87	.28	.00	.00	2.39
PLANT + PRE	5	.40	.48	.40	.87	.61	13.33	.00	16.08
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	5	.54	.65	.35	.68	.41	.99	.00	3.63
CULT + POST EARLY	5	.54	.65	.35	.68	.41	3.17	.00	5.81
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	6	.39	.47	.26	.49	.30	3.17	.00	5.08
CULT + POST LATE	6	.39	.47	.26	.49	.30	1.51	.00	3.42
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	7	.39	.47	.26	.49	.30	6.60	.00	8.51
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	6.63	6.63
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.66	1.66
GIN	10	.00	.00	.00	.00	.00	.00	58.40	58.40
TOTAL SPECIFIED COSTS		7.51	9.06	25.35	44.37	21.40	72.50	86.97	267.16

TABLE 10.ESTIMATED COST AND NET RETURNS PER ACRE SOLID COTTON, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	730.00	452.60
COTTON SEED	LB	.05000	1132.00	56.60
TOTAL INCOME				509.20
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.53	12.71
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	13.50	.50	6.72
TREFLAN	LB	6.19	.50	3.09
FERT ANHY AMMONIA	CWT	7.50	1.22	9.15
KARMEX (DL)	LB	4.11	.32	1.32
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	4.45	3.56
COTORAN	LB	5.79	.80	4.63
KARMEX (WF)	LB	3.25	.20	.65
LOROX	LB	6.60	1.00	6.60
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	4.45	1.00	4.45
TRACTOR	ACRE	7.51	1.00	7.51
INT ON OP CAP	ACRE	5.39	1.00	5.39
HAUL	LB	.01	730.00	8.29
GIN	LB	.08	730.00	58.40
TOTAL DIRECT EXPENSE				219.13
RETURNS ABOVE DIRECT EXPENSES				290.07
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	8.69	1.00	8.69
TRACTOR	ACRE	9.06	1.00	9.06
TOTAL FIXED EXPENSE				53.43
TOTAL SPECIFIED EXPENSES				272.56
NET RETURN				236.64

TABLE 11 .ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.39	.47	.17	.29	.30	.00	.00	1.62
REBED	4	.39	.47	.17	.29	.30	.00	.00	1.62
APPLY FERT SPIN SPR	4	.30	.36	.08	.13	.23	14.22	.00	15.33
ROW CONDITION	5	.45	.54	.37	.72	.35	.00	.00	2.43
PLANT + PRE	5	.59	.72	.45	1.00	.91	15.30	.00	18.98
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.63	.76	.21	.40	.48	.00	.00	2.49
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	5	.72	.87	.31	.60	.55	.99	.00	4.05
CULT + POST EARLY	6	.72	.87	.31	.60	.55	.99	.00	4.05
APPLY FERT SPIN SPR	6	.30	.36	.08	.13	.23	14.22	.00	15.33
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	6	.54	.65	.23	.45	.41	.68	.00	2.97
CULT + POST LATE	6	.54	.65	.23	.45	.41	.68	.00	2.97
CULTIVATE LATE	7	.42	.51	.14	.26	.32	.00	.00	1.65
HAND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4.60
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		8.46	10.21	25.16	43.90	22.28	84.78	63.81	258.59
INTEREST ON OPERATING CAPITAL									5.33

TABLE 12.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.59	12.86
OPERATOR LABOR	HOUR	2.30	2.88	6.62
SPECIAL LABOR	HOUR	2.30	1.21	2.79
TREFLAN	LB	6.19	1.00	6.19
FERT AMM NITRATE	CWT	6.35	4.48	28.45
KARMEX (DL)	LB	4.11	.80	3.29
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	2.48	1.98
KARMEX (WP)	LB	3.25	.42	1.36
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	4.26	1.00	4.26
TRACTOR	ACRE	8.46	1.00	8.46
INT ON OP CAP	ACRE	5.33	1.00	5.33
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				209.82
RETURNS ABOVE DIRECT EXPENSES				173.83
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	8.22	1.00	8.22
TRACTOR	ACRE	10.21	1.00	10.21
TOTAL FIXED EXPENSE				54.11
TOTAL SPECIFIED EXPENSES				263.92
NET RETURN				119.73

TABLE 13 .ESTIMATED COST PER ACRE, SOLID COTTON, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
REBED	4	.30	.36	.17	.29	.23	.00	.00	1.35
APPLY FERT SPIN SPR	4	.30	.36	.08	.13	.23	14.22	.00	15.33
ROW CONDITION	5	.36	.44	.45	.87	.28	.00	.00	2.39
PLANT + PRE	5	.40	.48	.40	.87	.61	15.30	.00	18.05
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	5	.54	.65	.35	.68	.41	.99	.00	3.63
CULT + POST EARLY	6	.54	.65	.35	.68	.41	.99	.00	3.63
APPLY FERT SPIN SPR	6	.30	.36	.08	.13	.23	14.22	.00	15.33
HAND WEED CONTROL	6	.00	.00	.00	.00	4.60	.00	.00	4.60
CULT + POST LATE	6	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	6	.39	.47	.26	.49	.30	.68	.00	2.59
CULTIVATE LATE	7	.30	.36	.16	.30	.23	.00	.00	1.35
HAND WEED CONTROL	7	.00	.00	.00	.00	4.60	.00	.00	4.60
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		7.06	8.52	25.39	44.28	21.05	84.78	63.81	254.88
INTEREST ON OPERATING CAPITAL									5.23
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									

TABLE 14.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	5.53	12.71
OPERATOR LABOR	HOUR	2.30	2.41	5.55
SPECIAL LABOR	HOUR	2.30	1.21	2.79
TREFLAN	LB	6.19	1.00	6.19
FERT AMM NITRATE	CWT	6.35	4.48	28.45
KARMEX (DL)	LB	4.11	.80	3.29
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	2.48	1.98
KARMEX (WP)	LB	3.25	.42	1.36
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	4.49	1.00	4.49
TRACTOR	ACRE	7.06	1.00	7.06
INT ON OP CAP	ACRE	5.23	1.00	5.23
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				207.32
RETURNS ABOVE DIRECT EXPENSES				176.33
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	8.60	1.00	8.60
TRACTOR	ACRE	8.52	1.00	8.52
TOTAL FIXED EXPENSE				52.79
TOTAL SPECIFIED EXPENSES				260.11
NET RETURN				123.54

TABLE 15 .ESTIMATED COST PER ACRE, 2 X 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.49	.58	.04	.14	.46	.00	.00	1.71
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	3.09	.00	6.18
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	3	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.39	.47	.17	.29	.30	.00	.00	1.62
DISK BED + FERT	4	.48	.58	.25	.43	.37	6.15	.00	8.26
ROW CONDITION	5	.54	.65	.44	.86	.41	.00	.00	2.92
PLANT + PRE	5	.59	.72	.45	1.00	.91	8.95	.00	12.63
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.63	.76	.21	.40	.48	.00	.00	2.49
APPLY INS GROUND	5	.00	.00	.27	.34	.17	.60	.00	1.39
CULT + POST EARLY	5	.72	.87	.31	.60	.55	.66	.00	3.72
CULT + POST EARLY	6	.72	.87	.31	.60	.55	2.13	.00	5.18
HAND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.08
CULT + POST LATE	6	.54	.65	.23	.45	.41	2.13	.00	4.41
CULT + POST LATE	6	.54	.65	.23	.45	.41	1.01	.00	3.30
HAND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.08
CULT + POST LATE	7	.54	.65	.23	.45	.41	6.60	.00	8.89
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	10.08	17.26	2.55	.00	.00	29.90
HAUL	10	.00	.00	.00	.00	.00	.00	5.83	5.83
2ND PICK 2 ROW	10	.00	.00	5.19	8.90	1.32	.00	.00	15.41
HAUL	10	.00	.00	.00	.00	.00	.00	1.46	1.46
GIN	10	.00	.00	.00	.00	.00	.00	51.44	51.44
TOTAL SPECIFIED COSTS		8.82	10.65	19.82	34.91	18.11	61.91	79.03	233.24

BLE 16.ESTIMATED COST AND NET RETURNS PER ACRE
K 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
SSISSIPPI DELTA, 1977.

EM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
COME				
COTTON LINT	LB	.62000	643.00	398.66
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				448.51
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.98	9.15
OPERATOR LABOR	HOUR	2.30	2.98	6.85
SPECIAL LABOR	HOUR	2.30	.92	2.11
APPLY LIME X1/6	TON	13.50	.50	6.72
TREFLAN	LB	6.19	.50	3.09
FERT ANHY AMMONIA	CWT	7.50	.82	6.15
KARMEX (DL)	LB	4.11	.21	.88
TEMIK	LB	11.47	.20	2.31
SOIL TREATER XXX	LB	1.15	.67	.77
SEED	LB	.27	18.50	4.99
BIDRIN	LB	4.50	.13	.60
MSMA + SURFACTANT	PT	.80	2.98	2.39
COTORAN	LB	5.79	.54	3.10
KARMEX (WP)	LB	3.25	.13	.44
LOROX	LB	6.60	1.00	6.60
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	15.54	1.00	15.54
EQUIPMENT	ACRE	4.28	1.00	4.28
TRACTOR	ACRE	8.82	1.00	8.82
INT ON OP CAP	ACRE	4.75	1.00	4.75
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				192.43
RETURNS ABOVE DIRECT EXPENSES				256.08
IED EXPENSES				
SPECIAL EQUIPMENT	ACRE	26.51	1.00	26.51
EQUIPMENT	ACRE	8.41	1.00	8.41
TRACTOR	ACRE	10.65	1.00	10.65
TOTAL FIXED EXPENSE				45.56
TOTAL SPECIFIED EXPENSES				237.99
NET RETURN				210.52

TABLE 17 .ESTIMATED COST PER ACRE, 2 X 1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.49	.58	.04	.14	.46	.00	.00	1.71
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	3.09	.00	6.18
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	3	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
DISK BED + FERT	4	.36	.44	.24	.41	.28	6.15	.00	7.87
ROW CONDITION	5	.32	.39	.40	.77	.25	.00	.00	2.13
PLANT + PRE	5	.35	.43	.35	.77	.54	8.95	.00	11.40
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.43	.52	.22	.43	.33	.00	.00	1.92
APPLY INS GROUND	5	.00	.00	.27	.34	.17	.60	.00	1.39
CULT + POST EARLY	5	.48	.58	.31	.61	.37	.66	.00	3.01
CULT + POST EARLY	6	.48	.58	.31	.61	.37	2.13	.00	4.47
HAND WEED CONTROL	6	.00	.00	.00	.00	3.08	.00	.00	3.08
CULT + POST LATE	6	.35	.42	.23	.44	.27	2.13	.00	3.83
CULT + POST LATE	6	.35	.42	.23	.44	.27	1.01	.00	2.71
HAND WEED CONTROL	7	.00	.00	.00	.00	3.08	.00	.00	3.08
CULT + POST LATE	7	.35	.42	.23	.44	.27	6.60	.00	8.30
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APPLY INS AIR X2	7	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	10.08	17.26	2.55	.00	.00	29.90
HAUL	10	.00	.00	.00	.00	.00	.00	5.83	5.83
2ND PICK 2 ROW	10	.00	.00	5.19	8.90	1.32	.00	.00	15.41
HAUL	10	.00	.00	.00	.00	.00	.00	1.46	1.46
GIN	10	.00	.00	.00	.00	.00	.00	51.44	51.44
TOTAL SPECIFIED COSTS		6.88	8.31	19.69	34.57	16.44	61.91	79.03	226.83

BLE 18.ESTIMATED COST AND NET RETURNS PER ACRE
1 COTTON, LAND BASIS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
SISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	643.00	398.66
COTTON SEED	LB	.05000	997.00	49.85
TOTAL INCOME				448.51
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.90	8.97
OPERATOR LABOR	HOUR	2.30	2.34	5.37
SPECIAL LABOR	HOUR	2.30	.92	2.11
APPLY LIME X1/6	TON	13.50	.50	6.72
TREFLAN	LB	6.19	.50	3.09
FERT ANHY AMMONIA	CWT	7.50	.82	6.15
KARMEX (DL)	LB	4.11	.21	.88
TEMIK	LB	11.47	.20	2.31
SOIL TREATER XXX	LB	1.15	.67	.77
SEED	LB	.27	18.50	4.99
BIDRIN	LB	4.50	.13	.60
MSMA + SURFACTANT	PT	.80	2.98	2.39
COTORAN	LB	5.79	.54	3.10
KARMEX (WP)	LB	3.25	.13	.44
LOROX	LB	6.60	1.00	6.60
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	21.36	20.72
APPLY INS AIR X2	ACRE	.95	6.00	5.70
APPLY INS AIR X4	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	15.54	1.00	15.54
EQUIPMENT	ACRE	4.14	1.00	4.14
TRACTOR	ACRE	6.88	1.00	6.88
INT ON OP CAP	ACRE	4.57	1.00	4.57
HAUL	LB	.01	643.00	7.30
GIN	LB	.08	643.00	51.44
TOTAL DIRECT EXPENSE				188.52
RETURNS ABOVE DIRECT EXPENSES				259.99
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	26.51	1.00	26.51
EQUIPMENT	ACRE	8.07	1.00	8.07
TRACTOR	ACRE	8.31	1.00	8.31
TOTAL FIXED EXPENSE				42.88
TOTAL SPECIFIED EXPENSES				231.40
NET RETURN				217.11

TABLE 19 .ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
SUBSOILER 2 ROW	11	1.86	2.25	.27	.45	1.43	.00	.00	6.26
DISK BED	3	.39	.47	.17	.29	.30	.00	.00	1.62
DISK BED + FERT	4	.48	.58	.25	.43	.37	8.25	.00	10.36
ROW CONDITION	5	.54	.65	.44	.86	.41	.00	.00	2.92
PLANT + PRE	5	.59	.72	.45	1.00	.91	13.33	.00	17.01
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.63	.76	.21	.40	.48	.00	.00	2.49
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	6	.72	.87	.31	.60	.55	3.17	.00	6.23
CULT + POST EARLY	6	.72	.87	.31	.60	.55	3.17	.00	6.23
HAND WEED CONTROL	6	.00	.00	.00	.00	3.45	.00	.00	3.45
CULT + POST LATE	6	.54	.65	.23	.45	.41	.68	.00	2.97
CULT + POST LATE	7	.54	.65	.23	.45	.41	.68	.00	2.97
HAND WEED CONTROL	7	.00	.00	.00	.00	3.45	.00	.00	3.45
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APP INS - AIR	7	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
GIN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TOTAL SPECIFIED COSTS		7.80	9.41	23.88	41.50	19.45	58.19	89.40	249.63
INTEREST ON OPERATING CAPITAL									4.74
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									254.36

TABLE 20.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	767.00	475.54
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				534.99
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.58	10.54
OPERATOR LABOR	HOUR	2.30	2.66	6.11
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	13.50	.50	6.72
FERT ANHY AMMONIA	CWT	7.50	1.10	8.25
KARMEX (DL)	LB	4.11	.32	1.32
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
COTORAN	LB	5.79	.80	4.63
MSMA + SURFACTANT	PT	.80	2.14	1.71
KARMEX (WP)	LB	3.25	.42	1.36
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	18.69	18.13
APP INS - AIR	ACRE	.95	1.00	.95
APPLY INS AIR X4	ACRE	.95	4.00	3.80
APPLY INS AIR X2	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	2.97	1.00	2.97
TRACTOR	ACRE	7.80	1.00	7.80
INT ON OP CAP	ACRE	4.74	1.00	4.74
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				203.45
RETURNS ABOVE DIRECT EXPENSES				331.54
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	5.82	1.00	5.82
TRACTOR	ACRE	9.41	1.00	9.41
TOTAL FIXED EXPENSE				50.91
TOTAL SPECIFIED EXPENSES				254.36
NET RETURN				280.63

TABLE 21 .ESTIMATED COST PER ACRE, SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
SUBSOILER 2 ROW	11	1.86	2.25	.27	.45	1.43	.00	.00	6.26
DISK BED	3	.30	.36	.17	.29	.23	.00	.00	1.35
DISK BED + FERT	4	.36	.44	.24	.41	.28	8.25	.00	9.97
ROW CONDITION	5	.36	.44	.45	.87	.28	.00	.00	2.39
PLANT + PRE	5	.40	.48	.40	.87	.61	13.33	.00	16.08
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.17	.00	5.81
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.17	.00	5.81
HAND WEED CONTROL	6	.00	.00	.00	.00	3.45	.00	.00	3.45
CULT + POST LATE	6	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
HAND WEED CONTROL	7	.00	.00	.00	.00	3.45	.00	.00	3.45
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APP INS - AIR	7	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	6.97	6.97
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.74	1.74
GIN	10	.00	.00	.00	.00	.00	.00	61.36	61.36
TOTAL SPECIFIED COSTS		6.40	7.72	24.00	41.68	18.23	58.19	89.40	245.61
INTEREST ON OPERATING CAPITAL									4.63
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									250.24

TABLE 22.ESTIMATED COST AND NET RETURNS PER ACRE
SOLID COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	767.00	475.54
COTTON SEED	LB	.05000	1189.00	59.45
TOTAL INCOME				534.99
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.52	10.39
OPERATOR LABOR	HOUR	2.30	2.19	5.04
SPECIAL LABOR	HOUR	2.30	1.21	2.79
APPLY LIME X1/6	TON	13.50	.50	6.72
FERT ANHY AMMONIA	CWT	7.50	1.10	8.25
KARMEX (DL)	LB	4.11	.32	1.32
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	1.00	1.15
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
COTORAN	LB	5.79	.80	4.63
MSMA + SURFACTANT	PT	.80	2.14	1.71
KARMEX (WP)	LB	3.25	.42	1.36
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	18.69	18.13
APP INS - AIR	ACRE	.95	1.00	.95
APPLY INS AIR X4	ACRE	.95	4.00	3.80
APPLY INS AIR X2	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	20.90	1.00	20.90
EQUIPMENT	ACRE	3.10	1.00	3.10
TRACTOR	ACRE	6.40	1.00	6.40
INT ON OP CAP	ACRE	4.63	1.00	4.63
HAUL	LB	.01	767.00	8.71
GIN	LB	.08	767.00	61.36
TOTAL DIRECT EXPENSE				200.84
RETURNS ABOVE DIRECT EXPENSES				334.15
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	35.68	1.00	35.68
EQUIPMENT	ACRE	6.00	1.00	6.00
TRACTOR	ACRE	7.72	1.00	7.72
TOTAL FIXED EXPENSE				49.39
TOTAL SPECIFIED EXPENSES				250.24
NET RETURN				284.75

TABLE 23 .ESTIMATED COST PER ACRE, 2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.49	.58	.04	.14	.46	.00	.00	1.71
SUBSOILER 2 ROW	11	1.86	2.25	.27	.45	1.43	.00	.00	6.26
DISK BED	3	.39	.47	.17	.29	.30	.00	.00	1.62
DISK BED + FERT	4	.48	.58	.25	.43	.37	5.55	.00	7.66
ROW CONDITION	5	.54	.65	.44	.86	.41	.00	.00	2.92
PLANT + PRE	5	.59	.72	.45	1.00	.91	8.95	.00	12.63
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.63	.76	.21	.40	.48	.00	.00	2.49
APPLY INS GROUND	5	.00	.00	.27	.34	.17	.60	.00	1.39
CULT + POST EARLY	6	.72	.87	.31	.60	.55	2.13	.00	5.18
CULT + POST EARLY	6	.72	.87	.31	.60	.55	2.13	.00	5.18
HAND WEED CONTROL	6	.00	.00	.00	.00	2.31	.00	.00	2.31
CULT + POST LATE	6	.54	.65	.23	.45	.41	.46	.00	2.74
CULT + POST LATE	7	.54	.65	.23	.45	.41	.46	.00	2.74
HAND WEED CONTROL	7	.00	.00	.00	.00	2.31	.00	.00	2.31
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APP INS - AIR	7	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	9.40	16.10	2.38	.00	.00	27.88
HAUL	10	.00	.00	.00	.00	.00	.00	6.13	6.13
2ND PICK 2 ROW	10	.00	.00	4.70	8.04	1.19	.00	.00	13.93
HAUL	10	.00	.00	.00	.00	.00	.00	1.53	1.53
GIN	10	.00	.00	.00	.00	.00	.00	54.00	54.00
TOTAL SPECIFIED COSTS		7.56	9.12	17.32	30.24	15.28	48.27	81.00	208.78
INTEREST ON OPERATING CAPITAL									4.04
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									212.83

TABLE 24.ESTIMATED COST AND NET RETURNS PER ACRE
2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 6 ROW
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	675.00	418.50
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				470.80
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.23	7.44
OPERATOR LABOR	HOUR	2.30	2.56	5.89
SPECIAL LABOR	HOUR	2.30	.85	1.96
APPLY LIME X1/6	TON	13.50	.50	6.72
FERT ANHY AMMONIA	CWT	7.50	.74	5.55
KARMEX (DL)	LB	4.11	.21	.88
TEMIK	LB	11.47	.20	2.31
SOIL TREATER XXX	LB	1.15	.67	.77
SEED	LB	.27	18.50	4.99
BIDRIN	LB	4.50	.13	.60
COTORAN	LB	5.79	.54	3.10
MSMA + SURFACTANT	PT	.80	1.43	1.15
KARMEX (WP)	LB	3.25	.28	.91
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	18.69	18.13
APP INS - AIR	ACRE	.95	1.00	.95
APPLY INS AIR X4	ACRE	.95	4.00	3.80
APPLY INS AIR X2	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	14.36	1.00	14.36
EQUIPMENT	ACRE	2.96	1.00	2.96
TRACTOR	ACRE	7.56	1.00	7.56
INT ON OP CAP	ACRE	4.04	1.00	4.04
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				173.46
RETURNS ABOVE DIRECT EXPENSES				297.34
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	24.48	1.00	24.48
EQUIPMENT	ACRE	5.76	1.00	5.76
TRACTOR	ACRE	9.12	1.00	9.12
TOTAL FIXED EXPENSE				39.36
TOTAL SPECIFIED EXPENSES				212.83
NET RETURN				257.97

TABLE 25 .ESTIMATED COST PER ACRE, 2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.49	.58	.04	.14	.46	.00	.00	1.71
SUBSOILER 2 ROW	11	1.86	2.25	.27	.45	1.43	.00	.00	6.26
DISK BED	3	.30	.36	.17	.29	.23	.00	.00	1.35
DISK BED + FERT	4	.36	.44	.24	.41	.28	5.55	.00	7.27
ROW CONDITION	5	.32	.39	.40	.77	.25	.00	.00	2.13
PLANT + PRE	5	.35	.43	.35	.77	.54	8.95	.00	11.40
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.43	.52	.22	.43	.33	.00	.00	1.92
APPLY INS GROUND	5	.00	.00	.27	.34	.17	.60	.00	1.39
CULT + POST EARLY	6	.48	.58	.31	.61	.37	2.13	.00	4.47
CULT + POST EARLY	6	.48	.58	.31	.61	.37	2.13	.00	4.47
HAND WEED CONTROL	6	.00	.00	.00	.00	2.31	.00	.00	2.31
CULT + POST LATE	6	.35	.42	.23	.44	.27	.46	.00	2.16
CULT + POST LATE	7	.35	.42	.23	.44	.27	.46	.00	2.16
HAND WEED CONTROL	7	.00	.00	.00	.00	2.31	.00	.00	2.31
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APP INS - AIR	7	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	9.40	16.10	2.38	.00	.00	27.88
HAUL	10	.00	.00	.00	.00	.00	.00	6.13	6.13
2ND PICK 2 ROW	10	.00	.00	4.70	8.04	1.19	.00	.00	13.93
HAUL	10	.00	.00	.00	.00	.00	.00	1.53	1.53
GIN	10	.00	.00	.00	.00	.00	.00	54.00	54.00
TOTAL SPECIFIED COSTS		5.82	7.02	17.18	29.91	13.76	48.27	81.00	202.96
INTEREST ON OPERATING CAPITAL									3.94
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									206.90

TABLE 26.ESTIMATED COST AND NET RETURNS PER ACRE
2 X 1 COTTON, LAND BASIS, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	675.00	418.50
COTTON SEED	LB	.05000	1046.00	52.30
TOTAL INCOME				470.80
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	3.15	7.25
OPERATOR LABOR	HOUR	2.30	1.98	4.55
SPECIAL LABOR	HOUR	2.30	.85	1.96
APPLY LIME X1/6	TON	13.50	.50	6.72
FERT ANHY AMMONIA	CWT	7.50	.74	5.55
KARMEX (DL)	LB	4.11	.21	.88
TEMIK	LB	11.47	.20	2.31
SOIL TREATER XXX	LB	1.15	.67	.77
SEED	LB	.27	18.50	4.99
BIORIN	LB	4.50	.13	.60
COTORAN	LB	5.79	.54	3.10
MSMA + SURFACTANT	PT	.80	1.43	1.15
KARMEX (WP)	LB	3.25	.28	.91
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	18.69	18.13
APP INS - AIR	ACRE	.95	1.00	.95
APPLY INS AIR X4	ACRE	.95	4.00	3.80
APPLY INS AIR X2	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	14.36	1.00	14.36
EQUIPMENT	ACRE	2.82	1.00	2.82
TRACTOR	ACRE	5.82	1.00	5.82
INT ON OP CAP	ACRE	3.94	1.00	3.94
HAUL	LB	.01	675.00	7.66
GIN	LB	.08	675.00	54.00
TOTAL DIRECT EXPENSE				169.97
RETURNS ABOVE DIRECT EXPENSES				300.83
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	24.48	1.00	24.48
EQUIPMENT	ACRE	5.43	1.00	5.43
TRACTOR	ACRE	7.02	1.00	7.02
TOTAL FIXED EXPENSE				36.93
TOTAL SPECIFIED EXPENSES				206.90
NET RETURN				263.90

TABLE 27 .ESTIMATED COST PER ACRE, STONEVILLE WIDEBED COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/6	11	.00	.00	.00	.00	.00	.00	6.72	6.72
STALK SHREDDER 2 ROW	11	.59	.69	.05	.17	.55	.00	.00	2.05
SUBSOILER 2 ROW	11	1.86	2.25	.27	.45	1.43	.00	.00	6.26
DISK BED	3	.32	.39	.18	.31	.25	.00	.00	1.45
DISK BED + FERT	4	.36	.44	.24	.41	.28	6.60	.00	8.32
ROW CONDITION	5	.39	.47	.48	.93	.30	.00	.00	2.56
PLANT + PRE	5	.42	.51	.42	.93	.65	10.66	.00	13.61
TRAILER	5	.05	.06	.04	.08	.41	.00	.00	.64
CULTIVATE EARLY	5	.51	.62	.27	.51	.39	.00	.00	2.31
APPLY INS GROUND	5	.00	.00	.28	.36	.18	.72	.00	1.54
CULT + POST EARLY	6	.58	.70	.37	.73	.44	2.54	.00	5.36
CULT + POST EARLY	6	.58	.70	.37	.73	.44	2.54	.00	5.36
HAND WEED CONTROL	6	.00	.00	.00	.00	3.68	.00	.00	3.68
CULT + POST LATE	6	.42	.50	.28	.52	.32	.55	.00	2.59
CULT + POST LATE	7	.42	.50	.28	.52	.32	.55	.00	2.59
HAND WEED CONTROL	7	.00	.00	.00	.00	3.68	.00	.00	3.68
INSECT SCOUTING	7	.00	.00	.00	.00	.00	.00	2.25	2.25
APP INS - AIR	7	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR X4	8	.00	.00	.00	.00	.09	10.36	3.80	14.25
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	5.18	1.90	7.13
APPLY INS AIR X2	9	.00	.00	.00	.00	.05	7.48	1.90	9.42
APP DEFOLIATE - AIR	9	.00	.00	.00	.00	.00	2.39	1.81	4.20
1ST PICK 2 ROW	10	.00	.00	11.44	19.60	2.90	.00	.00	33.94
HAUL	10	.00	.00	.00	.00	.00	.00	6.70	6.70
2ND PICK 2 ROW	10	.00	.00	5.39	9.24	1.37	.00	.00	16.00
HAUL	10	.00	.00	.00	.00	.00	.00	1.68	1.68
GIN	10	.00	.00	.00	.00	.00	.00	59.04	59.04
TOTAL SPECIFIED COSTS		6.49	7.83	20.38	35.49	17.79	52.15	86.75	226.89
INTEREST ON OPERATING CAPITAL									4.32
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									231.20

ABLE 28.ESTIMATED COST AND NET RETURNS PER ACRE
TONEVILLE WIREBED COTTON, SANDY SOIL, LIMITED SEEDBED PREPARATION, 8 ROW
ISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	738.00	457.56
COTTON SEED	LB	.05000	1144.00	57.20
TOTAL INCOME				514.76
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	4.52	10.39
OPERATOR LABOR	HOUR	2.30	2.21	5.09
SPECIAL LABOR	HOUR	2.30	1.00	2.31
APPLY LIME X1/6	TON	13.50	.50	6.72
FERT ANHY AMMONIA	CWT	7.50	.88	6.60
KARMEX (DL)	LB	4.11	.26	1.05
TEMIK	LB	11.47	.24	2.75
SOIL TREATER XXX	LB	1.15	.80	.92
SEED	LB	.27	22.00	5.94
BIDRIN	LB	4.50	.16	.72
COTORAN	LB	5.79	.64	3.71
MSMA + SURFACTANT	PT	.80	1.71	1.37
KARMEX (WP)	LB	3.25	.34	1.09
INSECT SCOUTING	ACRE	2.25	1.00	2.25
TOX + METHYL PARA	PT	.97	18.69	18.13
APP INS - AIR	ACRE	.95	1.00	.95
APPLY INS AIR X4	ACRE	.95	4.00	3.80
APPLY INS AIR X2	ACRE	.95	4.00	3.80
LANNATE	LB	8.31	.90	7.48
DEFOLIANT	LB	1.67	1.43	2.39
APP DEFOLIATE - AIR	ACRE	1.65	1.10	1.81
SPECIAL EQUIPMENT	ACRE	17.12	1.00	17.12
EQUIPMENT	ACRE	3.26	1.00	3.26
TRACTOR	ACRE	6.49	1.00	6.49
INT ON OP CAP	ACRE	4.32	1.00	4.32
HAUL	LB	.01	738.00	8.38
GIN	LB	.08	738.00	59.04
TOTAL DIRECT EXPENSE				187.88
RETURNS ABOVE DIRECT EXPENSES				326.88
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	29.20	1.00	29.20
EQUIPMENT	ACRE	6.30	1.00	6.30
TRACTOR	ACRE	7.83	1.00	7.83
TOTAL FIXED EXPENSE				43.33
TOTAL SPECIFIED EXPENSES				231.20
NET RETURN				283.56

TABLE 29 .ESTIMATED COST PER ACRE, RICE BEHIND RICE, CLAY SOIL, USUAL INPUT PRACTICES, 115-150 DBHP TRACTOR, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK LEVEE	4	.15	.18	.06	.11	.11	.00	.00	.62
CHISEL PLOW 16 FT	4	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	4	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	4	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	4	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
PIPE 30 FT	4	.30	.36	.03	.11	.23	.00	.00	1.03
PLANT - AIR	5	.00	.00	.00	.00	.16	16.20	3.04	19.40
SURVEY + MARK	5	.00	.00	.00	.00	.00	.00	3.00	3.00
PULL LEVEE X3	5	.45	.54	.18	.33	.34	.00	.00	1.85
PULL + SEED LEVEE	5	.18	.22	.07	.12	.14	.96	.00	1.69
BUTT LEVEE	5	.36	.44	.09	.23	.28	.00	.00	1.39
APP PROPANIL - AIR	5	.00	.00	.00	.00	.05	9.12	2.50	11.67
SET SPILLS	5	.00	.00	.00	.00	.55	.00	.00	.55
FLOOD-ADJ SPILLS	5	.00	.00	.00	.00	.05	9.30	2.50	11.85
APPLY ORDRAM - AIR	5	.00	.00	.00	.00	1.15	.00	.00	1.15
APP UREA-AIR	6	.00	.00	.00	.00	.05	9.53	3.00	12.58
APP 2,4,5-T AIR	6	.00	.00	.00	.00	.05	4.04	3.00	7.09
APP UREA-AIR	6	.00	.00	.00	.00	.05	9.53	3.00	12.58
TEND WATER(RICE MAN)	7	.00	.00	.00	.00	2.62	.00	.00	2.62
WATER COST	10	.00	.00	24.94	15.80	.00	.00	.00	40.74
DRAIN(RICE MAN)	8	.00	.00	.00	.00	.58	.00	.00	.58
COMBINE 16 FT	9	.00	.00	13.35	19.85	1.73	.00	.00	34.92
TOW TRACTOR	9	1.12	1.59	.01	.02	.58	.00	.00	3.32
GRAIN CART	9	1.44	1.74	.46	.89	1.10	.00	.00	5.64
HAUL	0	.00	.00	.79	1.08	1.47	.00	.00	3.34
STORE - DRY - LOAD	9	.00	.00	9.93	13.68	2.41	.00	1.58	27.60
BURN	10	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		6.22	7.77	51.33	54.88	15.41	58.68	21.62	215.90
INTEREST ON OPERATING CAPITAL									6.89
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									222.79

BLE 30.ESTIMATED COST AND NET RETURNS PER ACRE
CE BEHIND RICE, CLAY SOIL, USUAL INPUT PRACTICES, 115-150 DBHP TRACTOR,
SSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
RICE	BU	3.25000	100.00	325.00
TOTAL INCOME				325.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	2.24	5.15
OPERATOR LABOR	HOUR	2.30	1.95	4.48
SPECIAL LABOR	HOUR	2.30	2.51	5.77
SEED	LB	.12	143.00	17.16
PLANT - AIR	CWT	2.25	1.35	3.04
SURVEY + MARK	ACRE	3.00	1.00	3.00
PROPANIL	LB	2.26	4.00	9.12
APP PROPANIL - AIR	ACRE	2.50	1.00	2.50
ORDRAM	LB	3.10	3.00	9.30
APPLY ORDRAM - AIR	ACRE	2.50	1.00	2.50
FERT UREA-SOLID	CWT	7.15	2.67	19.06
APP UREA-AIR	CWT	2.25	2.67	6.00
2,4,5-T	LB	4.04	1.00	4.04
APP 2,4,5-T AIR	ACRE	3.00	1.00	3.00
SPECIAL EQUIPMENT	ACRE	49.01	1.00	49.01
EQUIPMENT	ACRE	2.32	1.00	2.32
TRACTOR	ACRE	6.22	1.00	6.22
INT ON OP CAP	ACRE	6.89	1.00	6.89
FUMIGANT	ACRE	.00	100.00	.28
STORE - DRY - LOAD	ACRE	.01	100.00	1.30
TOTAL DIRECT EXPENSE				160.15
RETURNS ABOVE DIRECT EXPENSES				164.85
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	50.41	1.00	50.41
EQUIPMENT	ACRE	4.47	1.00	4.47
TRACTOR	ACRE	7.77	1.00	7.77
TOTAL FIXED EXPENSE				62.65
TOTAL SPECIFIED EXPENSES				222.79
NET RETURN				102.21

TABLE 31 .ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	3.09	.00	6.18
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.39	.47	.17	.29	.30	.00	.00	1.62
ROW CONDITION	5	.45	.54	.37	.72	.35	.00	.00	2.43
PLANT	5	.46	.56	.32	.69	.71	9.90	.00	12.64
TRAILER	5	.05	.06	.03	.07	.32	.00	.00	.53
CULTIVATE EARLY	6	.63	.76	.21	.40	.48	.00	.00	2.49
CULTIVATE LATE	6	.42	.51	.14	.26	.32	.00	.00	1.65
CULT + POST LATE	6	.54	.65	.23	.45	.41	1.10	.00	3.39
CULTIVATE LATE	7	.42	.51	.14	.26	.32	.00	.00	1.65
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.68	.68
TOTAL SPECIFIED COSTS		5.52	6.68	5.65	9.80	5.40	14.09	.68	47.82
INTEREST ON OPERATING CAPITAL									1.29
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									49.11

TABLE 32.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	22.00	143.00
TOTAL INCOME				143.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.27	.63
OPERATOR LABOR	HOUR	2.30	1.84	4.24
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.19	.50	3.09
SEED	LB	.15	66.00	9.90
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	2.60	1.00	2.60
TRACTOR	ACRE	5.52	1.00	5.52
INT ON OP CAP	ACRE	1.29	1.00	1.29
HAUL	BU	.03	22.00	.68
TOTAL DIRECT EXPENSE				32.63
RETURNS ABOVE DIRECT EXPENSES				110.37
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	5.13	1.00	5.13
TRACTOR	ACRE	6.66	1.00	6.68
TOTAL FIXED EXPENSE				16.48
TOTAL SPECIFIED EXPENSES				49.11
NET RETURN				93.89

TABLE 33 .ESTIMATED COST PER ACRE, SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	3.09	.00	6.18
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
ROW CONDITION	5	.36	.44	.45	.87	.28	.00	.00	2.39
PLANT	5	.33	.40	.30	.66	.51	9.90	.00	12.09
TRAILER	5	.05	.06	.03	.07	.32	.00	.00	.53
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
CULT + POST LATE	6	.39	.47	.26	.49	.30	1.10	.00	3.01
CULTIVATE LATE	7	.30	.36	.16	.30	.23	.00	.00	1.35
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.68	.68
TOTAL SPECIFIED COSTS		4.67	5.65	5.82	10.12	4.65	14.09	.68	45.67
INTEREST ON OPERATING CAPITAL									1.23
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									46.90

TABLE 34.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, SANDY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	22.00	143.00
TOTAL INCOME				143.00
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.23	.53
OPERATOR LABOR	HOUR	2.30	1.56	3.59
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.19	.50	3.09
SEED	LB	.15	66.00	9.90
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	2.77	1.00	2.77
TRACTOR	ACRE	4.67	1.00	4.67
INT ON OP CAP	ACRE	1.23	1.00	1.23
HAUL	BU	.03	22.00	.68
TOTAL DIRECT EXPENSE				31.13
RETURNS ABOVE DIRECT EXPENSES				111.87
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	5.45	1.00	5.45
TRACTOR	ACRE	5.65	1.00	5.65
TOTAL FIXED EXPENSE				15.77
TOTAL SPECIFIED EXPENSES				46.90
NET RETURN				96.10

TABLE 35 .ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
ROW CONDITION	5	.45	.54	.37	.72	.35	.00	.00	2.43
PLANT	5	.46	.56	.32	.69	.71	9.90	.00	12.64
TRAILER	5	.05	.06	.03	.07	.32	.00	.00	.53
APP HERB - AIR	6	.00	.00	.00	.00	.00	3.00	1.65	4.65
CULTIVATE EARLY	6	.63	.76	.21	.40	.48	.00	.00	2.49
CULTIVATE LATE	6	.42	.51	.14	.26	.32	.00	.00	1.65
CULT + POST LATE	6	.54	.65	.23	.45	.41	1.10	.00	3.39
CULTIVATE LATE	7	.42	.51	.14	.26	.32	.00	.00	1.65
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.95	5.99	6.05	10.46	4.96	20.19	2.36	54.96
INTEREST ON OPERATING CAPITAL									1.59
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									56.55

TABLE 36.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.27	.63
OPERATOR LABOR	HOUR	2.30	1.65	3.80
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.19	1.00	6.19
SEED	LB	.15	66.00	9.90
DYANAP	PT	.75	4.00	3.00
APP HERB - AIR	ACRE	1.65	1.00	1.65
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	3.00	1.00	3.00
TRACTOR	ACRE	4.95	1.00	4.95
INT ON OP CAP	ACRE	1.59	1.00	1.59
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				40.10
RETURNS ABOVE DIRECT EXPENSES				109.40
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	5.79	1.00	5.79
TRACTOR	ACRE	5.99	1.00	5.99
TOTAL FIXED EXPENSE				16.45
TOTAL SPECIFIED EXPENSES				56.55
NET RETURN				92.95

TABLE 37 .ESTIMATED COST PER ACRE, SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
ROW CONDITION	5	.36	.44	.45	.87	.28	.00	.00	2.39
PLANT	5	.33	.40	.30	.66	.51	9.90	.00	12.09
TRAILER	5	.05	.06	.03	.07	.32	.00	.00	.53
APP HERB - AIR	6	.00	.00	.00	.00	.00	3.00	1.65	4.65
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
CULT + POST LATE	6	.39	.47	.26	.49	.30	1.10	.00	3.01
CULTIVATE LATE	7	.30	.36	.16	.30	.23	.00	.00	1.35
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.19	5.07	6.22	10.78	4.28	20.19	2.36	53.08
INTEREST ON OPERATING CAPITAL									1.54
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									54.62

TABLE 38.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, CLAY SOIL, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.23	.53
OPERATOR LABOR	HOUR	2.30	1.40	3.22
SPECIAL LABOR	HOUR	2.30	.23	.53
TREFLAN	LB	6.19	1.00	6.19
SEED	LB	.15	66.00	9.90
DYANAP	PT	.75	4.00	3.00
APP HERB - AIR	ACRE	1.65	1.00	1.65
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	3.17	1.00	3.17
TRACTOR	ACRE	4.19	1.00	4.19
INT ON OP CAP	ACRE	1.54	1.00	1.54
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				38.77
RETURNS ABOVE DIRECT EXPENSES				110.73
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	6.11	1.00	6.11
TRACTOR	ACRE	5.07	1.00	5.07
TOTAL FIXED EXPENSE				15.85
TOTAL SPECIFIED EXPENSES				54.62
NET RETURN				94.88

TABLE 39 .ESTIMATED COST PER ACRE, WHEAT FOR GRAIN, ALL SOILS, 115-150 DBHP TRACTOR, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	9	.42	.51	.37	.66	.32	.00	.00	2.28
CHISEL PLOW 16 FT	9	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	9	.42	.51	.37	.66	.32	.00	.00	2.28
FIELD CULT 21 FT	10	.30	.36	.15	.33	.23	.00	.00	1.37
ROW CONDITION	10	.45	.54	.37	.72	.35	.00	.00	2.43
GRAIN DRILL 12 FT	10	.79	.96	.52	1.08	1.21	9.90	.00	14.46
TRAILER	10	.05	.06	.03	.07	.32	.00	.00	.53
APP 2,4-D - AIR	2	.00	.00	.00	.00	.05	1.89	3.50	5.44
APP FERT - AIR	3	.00	.00	.00	.00	.05	16.13	5.71	21.89
COMBINE 20 FT	6	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	6	.00	.00	.00	.00	.00	.00	.81	.81
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		3.09	3.74	5.02	8.54	3.91	27.92	10.03	62.24
INTEREST ON OPERATING CAPITAL									2.01
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									64.25

TABLE 40.ESTIMATED COST AND NET RETURNS PER ACRE
WHEAT FOR GRAIN, ALL SOILS, 115-150 DBHP TRACTOR,
MISSISSIPPI DELTA, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.43	1.00
OPERATOR LABOR	HOUR	2.30	1.03	2.38
SPECIAL LABOR	HOUR	2.30	.23	.53
SEED	LB	.10	99.00	9.90
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.50	1.00	3.50
FERT AMM NITRATE	CWT	6.35	2.54	16.13
APP FERT - AIR	CWT	2.25	2.54	5.71
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	1.97	1.00	1.97
TRACTOR	ACRE	3.09	1.00	3.09
INT ON OP CAP	ACRE	2.01	1.00	2.01
HAUL	BU	.03	30.00	.81
TOTAL DIRECT EXPENSE				51.97
RETURNS ABOVE DIRECT EXPENSES				45.53
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	3.87	1.00	3.87
TRACTOR	ACRE	3.74	1.00	3.74
TOTAL FIXED EXPENSE				12.28
TOTAL SPECIFIED EXPENSES				64.25
NET RETURN				33.25

TABLE 41 .ESTIMATED COST PER ACRE, FALLOW, ALL SOILS, 115-150 DBHP TRACTOR, MISSISSIPPI DELTA, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
DISK HARROW 21 FT	6	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	7	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	7	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	8	.42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	8	.42	.51	.37	.66	.32	.00	.00	2.28
CHISEL PLOW 16 FT	9	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	9	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	9	.42	.51	.37	.66	.32	.00	.00	2.28
TOTAL SPECIFIED COSTS		3.84	4.65	2.54	4.66	2.94	.00	.00	18.63
INTEREST ON OPERATING CAPITAL									1.26
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									19.89

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Bulletin 851 February 1977

Cost of Production Estimates for the Black Belt of Northeast Mississippi, 1977

By: D. W. Parvin, Jr., James G. Hamill, Fred T. Cooke, Jr.

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in cooperation with Commodity Economics Division,
Economic Research Service, U. S. Department of Agriculture

FOREWORD

Data presented in this report were developed to support research by the Department of Agricultural Economics, Mississippi Agricultural and Forestry Experiment Station and the Commodity Economics Division, Economic Research Service, USDA and to provide others with current information on production practices and costs associated with various agricultural enterprises.

This report updates Bulletin 845, "Crop Budgets For The Black Belt of northeast Mississippi" [5]. Users interested in data collection procedures and budget estimation techniques are referred to earlier publications [1, 8, 9].

Readers are cautioned that costs presented are labeled "Total Specified Costs". Charges for land, management, and general farm overhead are *not* included. Farmers should make 1977 pla ting decisions based on "retur above direct expenses". This wou be a one-year short run decisio Long run decisions must be bas upon returns above total expens Total expenses include both dire and fixed expenses (estimated this publication) plus all oth expenses such as land, manag ment, and general farm overhea

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COST OF PRODUCTION ESTIMATES FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI, 1977

INTRODUCTION

This publication provides information on production practices and costs for selected crops grown in the Black Belt of northeast Mississippi. Current production practices and costs of the more important agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and other workers in agriculture. This publication is one of a series of recent publications [2, 3, 4, 5, 6, 7, 8, 9] dealing with costs of crop production in Mississippi.

ENTERPRISE BUDGETS

Each budget lists and describes all operations used to produce the crop. If an operation is followed by a times sign and a whole number (such as X2), it is repeated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "apply lime X1/4", means that lime would be applied every 4 years, and the listed costs are one-fourth of total cost of that operation. The month the operation usually is performed is indicated along with labor costs, direct and fixed tractor and equipment costs, materials costs, and miscellaneous costs.

Labor is charged at a rate of $2.30 per hour. A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interest charges on operating capital are for the period of time used and not for the whole year. Costs for self-propelled harvesting equipment appear under equipment costs. Miscellaneous costs include charges for custom services, hauling costs, ginning, drying, and storage costs where appropriate.

Tractor and machinery prices and related data are included in Tables 1 and 2; prices for chemicals, planting seed, fertilizers and other materials in Tables 3 and 4; and charges for aerial application in Table 5.[1]

These budgets do not include such items as taxes, insurance, drainage, bookkeeping, pickup truck expenses, land rent charges, management, or other overhead expenses.

The 90-100 DBHP[2] tractor is the prime power source for all 4-row budgets. The prime power source for all 6-row budgets is the 100-115 DBHP tractor. The 115-150 DBHP tractor was used for 8-row budgets.

Enterprise budgets are presented for two levels of inputs for each of the most important crops grown in the area. We used farm survey data to identify two groups of farmers. Practices reported by the larger group were assumed to be those most common in the area and we designated these as "usual input practices". A relatively small number of farmers reported the use of more weed and insect control than is common in the area and we designated these as "high input practices". Farmers who use these levels of inputs are striving for higher yields, or they are having more severe weed and insect problems than are generally encountered. It cannot be assumed that this level of inputs is more desirable, or reflects a more advanced technology.

Each budget is summarized in two budget tables. For example, Tables 6 and 7 are a set.[3] The first table of each set reports estimated cost per acre on an operation by

[1] *For convenience all tables are placed after the text.*

[2] *Drawbar horsepower, Nebraska rating.*

[3] *Tables 6 and 7 contain summaries of individual crop budgets (Table 8-41).*

operation basis. The figures in the body of these tables are dollars. These tables allow the user to take a quick look at the cost of producing a crop on an operation by operation basis.

The second table of each set of individual budgets reports estimated income and includes the quantity and price of each input used. By referring to the second table of each set the reader can determine the type of fertilizer, the price, the quantity applied, etc.

Machinery charges are divided into three categories---special equipment, equipment and tractor. Special equipment refers to self-propelled equipment; i.e., combines, cotton pickers and high clearance sprayers. Equipment refers to towed equipment. Labor also is divided into three categories. Operator labor denotes tractor driver labor. Special labor refers to driver time for self-propelled equipment and common labor is all other labor.

Soybeans

All operations and materials used for producing soybeans under "usual input practices" (Tables 8-17) are identical. Differences in these budgets result from differences in tractor and equipment size, row spacing, and quantity of banded materials.

Usual input practices---Tractor, equipment and labor charges for a given operation differ from budget to budget because of differences in tractor and equipment size. Changes in equipment size modify labor (tractor driver time) requirements per acre and this results in variations in the labor charge per acre.

Liming is charged at an annual rate of $3.87---a charge that reflects a custom rate of $7.75 per ton for two tons applied per acre each 4 years. Operations involving only a tractor and towed equipment are self-explanatory. Tractor and equipment direct and fixed costs for such operations are presented along with a labor charge. This labor charge is for the tractor driver.

The first operation involving material is the disk and incorporate operation (entitled "DISK + INCOR"). The material charge of $6.19 reflects 1.0 pounds (active ingredient) of Treflan®. The "APPLY FERT" operation shows a material charge of $17.50. This reflects the application of 250 pounds of 0-24-24 (60 pounds of P and K).

The planting operation shows a material charge of $8.25. This reflects 55 pounds of seed, based on a 50 pound planting rate and assumed 10 percent replanting.

Budgets for "usual input practices" with 38-inch row spacing assume that the producer applies Basagran® to only one-fourth of his acreage and the material cost of 86 cents reported for "SPRAY HCLEAR 14 ROW" is for only .0625 pounds of Basagran per acre. The cultivate and postlate operation for 38-inch row spacing indicates a material charge of $1.10 for .6 pounds of Dinitro.

Two materials were increased to account for the additional linear feet of row per acre with 30-inch row spacing. The operation labeled "SPRAY HCLEAR 14 ROW" shows a material charge of $1.14 for .0828 pounds of Basagran instead of the .0625 pounds which was specified for the 38-inch row budgets. The other change involves Dinitro® in the operation labeled "CULT + POST LATE". The material charge of $1.39 is for .76 pounds of Dinitro instead of the .6 pounds of Dinitro specified for the 38-inch row budgets. Seeding rate was not changed as the row width was narrowed.

High input practices---Budgets for "high input practices" (Tables 18-27) include four operations in the fall as opposed to only one in the "usual input practices" budgets. Most of this is a simple shift of spring seedbed operations to the fall. However, a deep chisel operation is added.

Three other differences occur. A preemerge herbicide was added to the planting operation. The materials charge of $9.35 reflects the seed charge of $8.25 (same as "usual input practices") plus .5 pounds of Dinitro per acre priced at $1.83 per pound or $1.10 per acre. A herbicide application at cracking stage was added. This operation is labeled "SPRAY HCLEAR 1 ROW". It appears immediately after the "PLANT + PRE" operation. This operation includes a material charge of $2.74 for 1.5 pounds of Dinitro. The other difference involves Basagran. This operation also is labeled "SPRAY HCLEAR 14 ROW". The "high input practices" budgets include the treatment of the total acreage with Basagran and the material charge of $3.44 is for .25 pounds of Basagran per acre.

Producing soybeans in 30-inch rows requires more of some materials because of the additional linear feet of row per acre. More Dinitro is indicated for the operations labeled "PLANT + PRE" and "CULT + POST LATE". Additional Basagran is specified for the operation labeled "SPRAY HCLEAR 14 ROW".

Cotton

The "usual input practices" budgets (Tables 28-33) specify only three operations in the fall---six fall operations are included in the "high input practices" budgets (Tables 34-39). Most of these

erations are moved from spring t fall but a deep-chisel operation is dded in fall. A spring re-bed peration is added to the "high iput practices" budget.

Usual input practices---The first peration specifying a materials st is disk and incorporate. It ncludes a charge of $6.19 for 1.0 unds of Treflan. The first APPLY FERT" includes a aterial charge of $19.37 for 250 unds of 8-24-24. "PLANT + PRE" sts a material charge of $18.22 for .25 pounds of Cotoran®, .3 pounds f Temik®, .1 pound of Soil Treater XX® (fungicide), and 27.5 pounds f seed (based on a 25 pound eeding rate and a 10 percent eplanting). The second "APPLY FERT" includes a material charge f $19.05---for 300 pounds of amnonium nitrate.

The material charge of $.78 for "CULT + POST EARLY" is for .93 pounds of MSMA. The two "CULT + POST LATE" operations each include a charge for .21 pounds of KARMEX (WP)®. "APPLY DEFOLIATE" specifies the application of 1.43 pounds of DEF®.

High input practices---These budgets specify two cultivate and post operations whereas the "usual input practices" budgets specify only one cultivate and post operation. Additionally, the postemerge herbicide charge of $3.06 is based on a different treatment---.93 pints of MSMA plus surfacant[2] and .4 pounds of Cotoran. The "high input practices" budgets also add two ground applications of MSMA plus surfacant. This operation is labeled "APPLY MSMA GROUND X2". The material charge of $3.20 is for two pints of MSMA plus surfacant per application.

Insecticide programs---The "usual input practices" budgets specify 13 insecticide treatments and the "high input practices" budgets list 15 applications.

The "usual input practices" insecticide program is: Temik (.30 pound) applied at planting, .20 pound of Bidrin®, six applications of .25 pound guthion and five applications of 2.00 pounds toxaphene plus 1.00 pound methyl parathion.

The "high input practices" insecticide program is identical to the "usual input practices" program except that two additional applications of toxaphene plus methyl parathion are specified.

Wheat

Tables 40 and 41 report the stimated per acre cost of produc- ng wheat. The prime power source or wheat production is the 115-150 DBHP-tractor, the same tractor hat was used for the 8-row soybean and cotton budgets. The first operaion labeled "APPLY FERT" requires a material charge of $15.50 for 200 pounds of 8-24-24. The planting operation includes a material charge of $8.80 for 88 pounds of seed (based upon an 80 pound seeding rate and a 10 percent replanting). The second application of fertilizer requires a material charge of $19.05 for 300 pounds of ammonium nitrate. The charge of $1.89 for "APP 2, 4-D AIR" includes the cost of one pound of 2, 4-D. Total material cost for producing one acre of wheat is estimated at $45.24. Fertilizer costs are $34.55 or 76 percent of total material cost.

SPECIFIED COSTS AND NET RETURNS

Ranges of total specified costs (including interest on operating capital) are:

Soybeans

$70.53 for "usual input practices", 6-row equipment and 38-inch row spacing to $92.01 for "high input practices", 6-row equipment and 30-inch row spacing (Table 6), and

Cotton

$248.33 for "usual input practices" with 8-row equipment to $283.54 for "high input practices" with 4-row equipment.

Total specified cost of producing an acre of wheat is $72.71.

Net returns (returns to land, management and farm overhead) per acre of soybeans yielding 23 bushels and selling for $6.50 range from $57.49 for "high input practices", 6-row equipment and 30-inch row spacing to $78.97 for "usual input practices", 6-row equipment and 38-inch row spacing (Table 7).

Returns to land, management and farm overhead per acre of cotton yielding 550 pounds of lint selling for 62 cents/pound and 853 pounds of seed selling at five cents/pound range from $100.11 for "high input practices" with 4-row equipment to $135.32 for "usual input practices" with 8-row equipment.

A 30-bushel per acre wheat crop selling at $3.25 per bushel yields a net return of $24.79.

Other combinations of yields and prices result in significantly different net returns; for example,

[4]*One pint of MSMA plus surfacant contains .75 pounds of active MSMA.*

an 18 bushel bean crop produced with 4-row equipment on 38-inch row spacing with "usual input practices" will result in an estimated net return of $23.72 per acre if beans sell for $5.50, a net return of $59.72 if beans sel fo $7.50 (Table 7).

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32 Estimated cost per acre, 8-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 40

33 Estimated cost and net returns per acre, 8-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 41

COTTON, HIGH INPUT PRACTICES

34 Estimated cost per acre, 4-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 42

35 Estimated cost and net returns per acre, 4-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 43

36 Estimated cost per acre, 6-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 44

37 Estimated cost and net returns per acre, 6-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 45

38 Estimated cost per acre, 8-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 46

39 Estimated cost and net returns per acre, 8-row equipment, 38-inch row spacing, Black Belt of Northeast Mississippi, 1977 47

Table Page

WHEAT FOR GRAIN

40 Estimated cost per acre, 115-150 DBHP tractor, Black Belt of Northeast Mississippi, 1977. 48

41 Estimated cost and net returns per acre, 115-150 DBHP tractor, Black Belt of Northeast Mississippi, 1977 49

Table 1. Estimated power and machinery performance rates, estimated life, purchase price, repair cost, and direct and costs per hour and per acre, Black Belt of Northeast Mississippi, 1977.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1977 price	Repair costs % of new cost	Direct costs per hour	Direct costs per acre	Fixed per hour
		Hours	Years	Hours	Dollars	Percent	Dollars	Dollars	Dollars
Tractor	90-100		12	700	15,700	65	2.45	---	2.88
Tractor	100-115		12	700	16,800	55	2.43	---	3.08
Tractor	115-150		12	700	19,800	52	3.00	---	3.63
Tractor	>150		12	700	24,400	49	3.64	---	4.47
Tractor (4-wheel drive)	<200		12	700	34,800	49	4.47	---	6.38
Tractor (4-wheel drive)	>200		12	700	41,800	49	5.54	---	7.66
Stalk shredder	2-row	.30	10	185	885	40	.19	.06	.69
Stalk shredder	4-row	.24	10	185	2,710	40	.59	.14	2.12
Subsoiler	2-row	.62	15	100	650	100	.43	.27	.73
Subsoiler	3-row	.52	15	100	1,050	100	.71	.37	1.18
Deep chisel	7-shank	.45	15	100	1,355	100	.90	.41	1.51
Deep chisel	11-shank	.40	15	100	2,240	100	1.49	.60	2.50
Chisel plow	12 ft.	.30	12	150	1,150	70	.45	.13	.98
Chisel plow	16 ft.	.22	12	150	1,885	70	.73	.16	1.61
Chisel plow	21 ft.	.14	12	150	2,945	70	1.15	.16	2.52
Middle breaker	6-row	.14	12	160	2,355	80	.98	.14	1.89
Middle breaker	8-row	.11	12	160	2,945	80	1.23	.13	2.36
Moldboard plow (2-way)	4-bottom	.30	15	120	3,060	80	1.36	.41	2.85
Disk harrow	14 ft.	.23	10	180	3,650	80	1.62	.37	2.94
Disk harrow	21 ft.	.14	10	180	5,890	80	2.62	.37	4.74
Disk harrow	28 ft.	.10	10	180	8,240	80	3.66	.37	6.64
Section harrow	6-row	.10	10	200	885	75	.33	.03	.64
Section harrow	8-row	.08	10	200	1,120	75	.42	.03	.81
Soil pulverizer	6-row	.15	10	100	3,300	75	2.47	.37	4.78
Soil pulverizer	8-row	.12	10	100	5,005	75	3.75	.45	7.26
Field cultivator	12 ft.	.20	10	100	1,175	65	.76	.15	1.70
Field cultivator	21 ft.	.10	10	100	2,290	65	1.49	.15	3.32
Field cultivator	42 ft.	.06	10	100	5,315	70	3.72	.22	7.71
Spin spreader	---	.10	8	100	765	80	.76	.08	1.30
Disk bedder	4-row	.21	8	160	1,315	80	.82	.17	1.40
Disk bedder	6-row	.13	8	160	2,120	80	1.32	.17	2.25
Disk bedder	8-row	.10	8	160	2,710	80	1.69	.17	2.88
Disk bedder & fertilizer	6-row	.16	8	160	2,530	80	1.58	.25	2.69
Disk & Incor	14 ft.	.30	10	180	4,000		1.78	.41	3.22
Disk bedder & fertilizer	8-row	.12	8	160	3,240	80	2.02	.24	3.44
Grain drill	12 ft.	.24	10	100	2,825	70	1.98	.47	4.10
Planter & preemerge rig	4-row	.22	12	150	3,855	70	1.50	.33	3.30
Planter & preemerge rig	6-row	.18	12	150	5,890	70	2.29	.41	5.04
Planter & preemerge rig	8-row	.12	12	150	7,650	70	2.97	.36	6.54
Planter	4-row	.20	12	150	3,640	70	1.42	.28	3.11
Planter	6-row	.14	12	150	5,300	70	2.06	.29	4.53
Planter	8-row	.10	12	150	7,065	70	2.75	.27	6.04
Cultivator-early	4-row	.25	12	200	1,820	80	.61	.15	1.17
Cultivator-early	6-row	.21	12	200	2,945	80	.98	.21	1.89
Cultivator-early	8-row	.16	12	200	4,710	80	1.57	.25	3.02
Cultivator-late	4-row	.20	12	200	1,820	80	.61	.12	1.17
Cultivator-late	6-row	.14	12	200	2,945	80	.98	.14	1.89
Cultivator-late	8-row	.10	12	200	4,710	80	1.57	.16	3.02
Cultivator & postemerge rig-early	4-row	.35	12	200	2,450	80	.82	.29	1.57
Cultivator & postemerge rig-early	6-row	.24	12	200	3,885	80	1.29	.31	2.49
Cultivator & postemerge rig-early	8-row	.18	12	200	5,890	80	1.96	.35	3.78
Cultivator & postemerge rig-late	4-row	.28	12	200	2,450	80	.82	.23	1.57
Cultivator & postemerge rig-late	6-row	.18	12	200	3,885	80	1.29	.23	2.49
Cultivator & postemerge rig-late	8-row	.13	12	200	5,890	80	1.96	.26	3.78
Sprayer-high clearance	14-row	.08	8	350	9,560	80	3.62	.29	4.64
Cotton picker-first picking	2-row	.75	10	200	42,900	75	18.17	13.62	31.10
Cotton picker-second picking	2-row	.55	10	200	42,900	75	18.17	9.99	31.10
Combine - soybean/wheat	20 ft.	.23	8	300	35,800	80	13.27	3.05	20.29
Cotton trailer	10-bale	---	12	200	2,590	25	.27	---	1.66

Table 2. Estimates of performance rates, length of life, annual use, purchase price and repair costs and of direct and fixed costs per hour and per acre, equipment of specified size, 30-inch row spacing, Black Belt of Northeast Mississippi, 1977.

Item	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1977 price	Repair costs	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	% of purchase price	Dollars		Dollars	
Planter	6-row	.19	12	150	5,300	70	2.06	.39	4.53	.86
Planter & preemerge rig	6-row	.24	12	150	5,890	70	2.29	.55	5.04	1.21
Cultivator-early	6-row	.28	12	200	2,945	80	.98	.27	1.89	.53
Cultivator-late	6-row	.19	12	200	2,945	80	.98	.19	1.89	.36
Cultivator & postemerge rig-early	6-row	.31	12	200	3,885	80	1.29	.40	2.49	.77
Cultivator & postemerge rig-late	6-row	.24	12	200	3,885	80	1.29	.31	2.49	.60
Planter	8-row	.14	12	150	7,065	70	2.75	.38	6.04	.85
Planter & preemerge rig	8-row	.16	12	150	7,655	70	2.98	.48	6.55	1.05
Cultivator-early	8-row	.21	12	200	4,710	80	1.57	.33	3.02	.63
Cultivator-late	8-row	.14	12	200	4,710	80	1.57	.22	3.02	.42
Cultivator & postemerge rig-early	8-row	.24	12	200	5,885	80	1.96	.47	3.78	.91
Cultivator & postemerge rig-late	8-row	.17	12	200	5,885	80	1.96	.33	3.78	.64

Table 3. Estimated materials prices, Black Belt of Northeast Mississippi, 1977.

Item	Unit[1/]	Cost
		Dollars
Defoliant:		
Def	lb.	1.67
Folex	lb.	1.67
Sodium chlorate	lb.	.48
Herbicides:		
Amiben	lb.	5.47
Atrazine	lb.	3.41
Basagran	lb.	13.78
Caparol (WP)	lb.	3.89
Caparol + MSMA	pt.	1.28
Cotoran	lb.	5.79
2,4-D	lb.	1.89
Dowpon	lb.	1.69
DSMA	lb.	1.00
Dyanap	pt.	.75
Glytac	lb.	1.24
Karmex (DL)	lb.	4.11
Karmex (WP)	lb.	3.25
Lasso	lb.	3.56
Lorox	lb.	6.60
MSMA	lb.	.84
MSMA + Surfactant	pt.	.80
Ordram	lb.	3.10
Paraquat	lb.	17.10
Prefar	lb.	3.62
Probe	lb.	9.67
Propanil	lb.	2.28
Propazine	lb.	3.73
Sencor	lb.	12.16
Surfactant	pt.	.49
Dinitro	lb.	1.83
Tenoran	lb.	5.96
Treflan	lb.	6.19
2,4,5-T	lb.	4.04
Fungicides:		
Soil Treater XXX	lb.	1.15
Stauffer 30-30	lb.	1.15
Insecticides:		
Azodrin	lb.	4.20
Bidrin	lb.	4.50
Cygon 267	lb.	4.36
Disyston	lb.	3.67
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	.97
Furadan	lb.	9.17
Guthion	lb.	5.02
Lannate	lb.	8.31
Methyl parathion	lb.	1.62
Sevin	lb.	2.26
Temik	lb.	11.47
Toxaphene	lb.	.66
Toxaphene + Methyl parathion	pt.	.97
Lo-Drift	pt.	1.74

[1/] Expressed on a per pound active basis except for materials priced in volume and fungicides which are priced on a basis of formulated material.

Table 4. Estimated seed, fertilizer, and lime prices, Black Belt of Northeast Mississippi, 1977.

Item	Unit	Estimated price
		Dollars
Seed:		
Alfalfa	lb.	1.25
Corn	lb.	.55
Cotton, Triple treated	lb.	.27
Grain sorghum	lb.	.25
Oat	lb.	.05
Soybean	lb.	.15
Wheat	lb.	.10
Rice	lb.	.12
Fertilizer:		
0-24-24	cwt.	7.00
8-24-24	cwt.	7.75
13-13-13	cwt.	6.60
Ammonium nitrate, 33%	cwt.	6.35
Anhydrous ammonia, 82%	cwt.	7.50
Urea, solid	cwt.	7.15
Lime (custom)	ton	7.75

Table 5. Summary of aerial application costs, Black Belt of Northeast Mississippi, 1977.

Application activity	Cost per acre	Cost per 100 pounds
	Dollars	Dollars
Fertilizer	---	2.25
Insecticide	.95	---
Lannate	1.65	---
Defoliate	1.65	---
Seed	---	2.25
Herbicide	1.65	---
2,4-D	3.50	---
2,4,5-T	3.50	---
Propanil	2.50	---

Table 6. Summary of estimated cost per acre for soybeans, cotton and wheat, Black Belt of Northeast Mississippi, 1977.[1/]

Crop description	Row space	Equipment size	Tractor		Equipment		Labor cost	Material cost	Misc. cost	Total specified cost	Interest on operating capital	Total cost
			Direct cost	Fixed cost	Direct cost	Fixed cost						
	inches		dollars									
Soybeans- usual input practices	38	4-row	6.08	7.14	5.23	8.95	6.78	33.90	4.58	72.67	2.77	75.44
	38	6-row	4.24	5.37	5.49	9.41	4.94	33.90	4.58	67.93	2.60	70.53
	38	8-row	4.62	5.59	5.56	9.53	4.37	33.90	4.58	68.15	2.60	70.76
	30	6-row	4.76	6.03	5.79	10.04	5.56	34.47	4.58	71.24	2.67	73.91
	30	8-row	5.14	6.22	5.89	10.23	4.87	34.47	4.58	71.40	2.67	74.08
Soybeans- high input practices	38	4-row	7.72	9.08	6.32	10.63	8.70	40.33	4.58	87.37	3.92	91.29
	38	6-row	5.66	7.17	6.87	11.62	6.71	40.33	4.58	82.94	3.74	86.67
	38	8-row	6.19	7.49	6.93	11.69	5.94	40.33	4.58	83.14	3.75	86.89
	30	6-row	6.33	8.02	7.26	12.43	7.49	42.01	4.58	88.13	3.87	92.01
	30	8-row	6.83	8.26	7.33	12.51	6.54	42.01	4.58	88.07	3.88	91.95
Cotton- usual input practices	38	4-row	9.02	10.60	26.50	44.94	16.01	88.75	54.04	249.87	5.33	255.20
	38	6-row	6.53	8.28	26.83	45.57	13.63	88.75	54.04	243.63	5.13	248.76
	38	8-row	6.88	8.32	26.94	45.72	12.56	88.75	54.04	243.21	5.12	248.33
Cotton- high input practices	38	4-row	11.50	13.51	28.53	47.94	19.07	102.47	54.04	277.06	6.48	283.54
	38	6-row	8.40	10.56	29.07	48.94	16.13	102.47	54.04	269.71	6.18	275.89
	38	8-row	8.92	10.79	29.22	49.17	14.89	102.47	54.04	269.44	6.19	275.63
Wheat	--	115-150 DBHP	1.98	2.39	4.35	7.16	2.39	45.24	6.56	70.07	2.64	72.71

[1/] See Tables 3-7 (pages 5-8) for costs details.

Table 7. Estimated per acre returns to land, management, and farm overhead, for soybeans, cotton and wheat, by equipment size and row space, for specified yields and prices, Black Belt of Northeast Mississippi, 1977.

Crop description	Row space	Equipment size	Yield	Price levels[1/] Low	Expected	High
	inches			dollars		
Soybeans- usual input practices	38	4-row	18 bu.	23.72	41.72	59.72
			23 bu.	51.06	74.06	97.06
			32 bu.	100.29	132.29	164.29
Soybeans- usual input practices	38	6-row	18 bu.	28.63	46.63	64.63
			23 bu.	55.97	78.97	101.97
			32 bu.	105.19	137.19	169.19
Soybeans- usual input practices	38	8-row	18 bu.	28.40	46.40	64.40
			23 bu.	55.74	78.74	101.74
			32 bu.	104.96	136.96	168.96
Soybeans- usual input practices	30	6-row	18 bu.	25.25	43.25	61.25
			23 bu.	52.59	75.59	98.59
			32 bu.	101.81	133.81	165.81
Soybeans- usual input practices	30	8-row	18 bu.	25.08	43.08	61.08
			23 bu.	52.42	75.42	98.42
			32 bu.	101.64	133.64	165.64
Soybeans- high input practices	38	4-row	18 bu.	7.87	25.87	43.87
			23 bu.	35.21	58.21	81.21
			32 bu.	84.43	116.43	148.43
Soybeans- high input practices	38	6-row	18 bu.	12.48	30.48	48.48
			23 bu.	39.83	62.83	85.83
			32 bu.	89.05	121.05	153.05
Soybeans- high input practices	38	8-row	18 bu.	12.26	30.26	48.26
			23 bu.	39.61	62.61	85.61
			32 bu.	88.83	120.83	152.83
Soybeans- high input practices	30	6-row	18 bu.	7.15	25.15	43.15
			23 bu.	34.49	57.49	80.49
			32 bu.	83.72	115.72	147.72
Soybeans- high input practices	30	8-row	18 bu.	7.21	25.21	43.21
			23 bu.	34.55	57.55	80.55
			32 bu.	83.78	115.78	147.78
Cotton- usual input practices	38	4-row	500 lb. lint	40.37	98.12	155.87
			550 lb. lint	64.92	128.45	191.98
			600 lb. lint	89.43	158.73	228.03
Cotton- usual input practices	38	6-row	500 lb. lint	46.80	104.55	162.30
			550 lb. lint	71.36	134.89	198.42
			600 lb. lint	95.87	165.17	234.47
Cotton- usual input practices	38	8-row	500 lb. lint	47.24	104.99	162.74
			550 lb. lint	71.79	135.32	198.85
			600 lb. lint	96.30	165.60	234.90
Cotton- high input practices	38	4-row	500 lb. lint	12.03	69.78	127.53
			550 lb. lint	36.58	100.11	163.64
			600 lb. lint	61.10	130.40	199.70
Cotton- high input practices	38	6-row	500 lb. lint	19.68	77.43	135.18
			550 lb. lint	44.23	107.76	171.29
			600 lb. lint	68.74	138.04	207.34
Cotton- high input practices	38	8-row	500 lb. lint	19.91	77.66	135.41
			550 lb. lint	44.47	108.00	171.53
			600 lb. lint	68.98	138.28	207.58
Wheat	--	115-150 DBHP	25 bu.	-3.83	8.67	21.17
			30 bu.	9.79	24.79	39.79
			35 bu.	23.40	40.90	58.40

[1/] Cotton: $.52, $.62, and $.72/lb. for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.52, $.62, and $.72 respectively. Soybeans: $5.50, $6.50, and $7.50/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

TABLE 8 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	4	.73	.86	.41	.74	.69	6.19	.00	9.63
APPLY FERT	4	.24	.29	.08	.13	.23	17.50	.00	18.47
FIELD CULT 12 FT	4	.49	.58	.15	.34	.46	.00	.00	2.02
SECTION HARROW	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT	5	.54	.63	.31	.68	1.01	8.25	.00	11.42
CULTIVATE EARLY	6	.61	.72	.15	.29	.58	.00	.00	2.35
CULTIVATE LATE	6	.49	.58	.12	.23	.46	.00	.00	1.88
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.69	.81	.23	.44	.64	1.10	.00	3.90
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.08	7.14	5.23	8.95	6.78	33.90	4.58	72.67
INTEREST ON OPERATING CAPITAL									2.77
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.44

TABLE 9.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	2.48	5.70
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.11	1.00	2.11
TRACTOR	ACRE	6.08	1.00	6.08
INT ON OP CAP	ACRE	2.77	1.00	2.77
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				59.34
RETURNS ABOVE DIRECT EXPENSES				90.16
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.19	1.00	4.19
TRACTOR	ACRE	7.14	1.00	7.14
TOTAL FIXED EXPENSE				16.10
TOTAL SPECIFIED EXPENSES				75.44
NET RETURN				74.06

TABLE 10 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	17.50	.00	18.49
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT	5	.37	.47	.32	.69	.71	8.25	.00	10.82
CULTIVATE EARLY	6	.51	.65	.21	.40	.48	.00	.00	2.25
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.44	.55	.23	.45	.41	1.10	.00	3.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.24	5.37	5.49	9.41	4.94	33.90	4.58	67.93
INTEREST ON OPERATING CAPITAL									2.60
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									70.53

TABLE 11.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.35
OPERATOR LABOR	HOUR	2.30	1.74	4.01
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.37	1.00	2.37
TRACTOR	ACRE	4.24	1.00	4.24
INT ON OP CAP	ACRE	2.60	1.00	2.60
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				55.75
RETURNS ABOVE DIRECT EXPENSES				93.75
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.64	1.00	4.64
TRACTOR	ACRE	5.37	1.00	5.37
TOTAL FIXED EXPENSE				14.78
TOTAL SPECIFIED EXPENSES				70.53
NET RETURN				78.97

TABLE 12 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	17.50	.00	18.60
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT	5	.33	.40	.30	.66	.51	8.25	.00	10.44
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.39	.47	.26	.49	.30	1.10	.00	3.01
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.62	5.59	5.56	9.53	4.37	33.90	4.58	68.15
INTEREST ON OPERATING CAPITAL									2.60
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									70.76

TABLE 13.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.11	.25
OPERATOR LABOR	HOUR	2.30	1.54	3.54
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.44	1.00	2.44
TRACTOR	ACRE	4.62	1.00	4.62
INT ON OP CAP	ACRE	2.60	1.00	2.60
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				55.64
RETURNS ABOVE DIRECT EXPENSES				93.86
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.77	1.00	4.77
TRACTOR	ACRE	5.59	1.00	5.59
TOTAL FIXED EXPENSE				15.12
TOTAL SPECIFIED EXPENSES				70.76
NET RETURN				78.74

TABLE 14 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	17.50	.00	18.49
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.19	.25	.03	.06	.18	.00	.00	.71
PLANT	5	.31	.64	.43	.95	.96	8.25	.00	11.74
CULTIVATE EARLY	6	.68	.86	.27	.53	.64	.00	.00	2.99
CULTIVATE LATE	6	.46	.59	.19	.36	.44	.00	.00	2.03
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	1.14	.00	1.35
CULT + POST LATE	7	.58	.74	.31	.60	.55	1.39	.00	4.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.76	6.03	5.79	10.04	5.56	34.47	4.58	71.24
INTEREST ON OPERATING CAPITAL									2.67
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									73.91

TABLE 15.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.21	.48
OPERATOR LABOR	HOUR	2.30	1.96	4.51
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.08	1.14
DINITRO	LB	1.83	.76	1.39
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.67	1.00	2.67
TRACTOR	ACRE	4.76	1.00	4.76
INT ON OP CAP	ACRE	2.67	1.00	2.67
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				57.84
RETURNS ABOVE DIRECT EXPENSES				91.66
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	5.28	1.00	5.28
TRACTOR	ACRE	6.03	1.00	6.03
TOTAL FIXED EXPENSE				16.07
TOTAL SPECIFIED EXPENSES				73.91
NET RETURN				75.59

TABLE 16 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	17.50	.00	18.60
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT	5	.46	.56	.42	.93	.71	8.25	.00	11.33
CULTIVATE EARLY	6	.63	.76	.33	.63	.48	.00	.00	2.84
CULTIVATE LATE	6	.42	.51	.22	.42	.32	.00	.00	1.89
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	1.14	.00	1.35
CULT + POST LATE	7	.51	.62	.33	.64	.39	1.39	.00	3.88
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.14	6.22	5.89	10.23	4.87	34.47	4.58	71.40
INTEREST ON OPERATING CAPITAL									2.67
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									74.08

TABLE 17.ESTIMATED COST AND NET RETURNS PER ACRE
SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.35
OPERATOR LABOR	HOUR	2.30	1.71	3.94
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.08	1.14
DINITRO	LB	1.83	.76	1.39
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.77	1.00	2.77
TRACTOR	ACRE	5.14	1.00	5.14
INT ON OP CAP	ACRE	2.67	1.00	2.67
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				57.63
RETURNS ABOVE DIRECT EXPENSES				91.87
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	5.46	1.00	5.46
TRACTOR	ACRE	6.22	1.00	6.22
TOTAL FIXED EXPENSE				16.45
TOTAL SPECIFIED EXPENSES				74.08
NET RETURN				75.42

TABLE 18 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.29	.08	.13	.23	17.50	.00	18.47
DEEP CHISEL 7 SHANK	11	1.10	1.30	.41	.68	1.03	.00	.00	4.52
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	4	.73	.86	.41	.74	.69	6.19	.00	9.63
FIELD CULT 12 FT	4	.49	.58	.15	.34	.46	.00	.00	2.02
SECTION HARROW	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	9.35	.00	12.92
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.61	.72	.15	.29	.58	.00	.00	2.35
CULTIVATE LATE	6	.98	1.15	.24	.46	.92	.00	.00	3.75
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.69	.81	.23	.44	.64	1.10	.00	3.90
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		7.72	9.08	6.32	10.63	8.70	40.33	4.58	87.37
INTEREST ON OPERATING CAPITAL									3.92
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									91.29

TABLE 19.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.24	.56
OPERATOR LABOR	HOUR	2.30	3.15	7.25
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	2.69	1.00	2.69
TRACTOR	ACRE	7.72	1.00	7.72
INT ON OP CAP	ACRE	3.92	1.00	3.92
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.58
RETURNS ABOVE DIRECT EXPENSES				77.92
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	5.22	1.00	5.22
TRACTOR	ACRE	9.08	1.00	9.08
TOTAL FIXED EXPENSE				19.71
TOTAL SPECIFIED EXPENSES				91.29
NET RETURN				58.21

TABLE 20 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.31	.08	.13	.23	17.50	.00	18.49
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.48	.61	.45	1.00	.91	9.35	.00	12.80
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.51	.65	.21	.40	.48	.00	.00	2.25
CULTIVATE LATE	6	.68	.86	.28	.52	.64	.00	.00	2.99
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.44	.55	.23	.45	.41	1.10	.00	3.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.66	7.17	6.87	11.62	6.71	40.33	4.58	82.94
INTEREST ON OPERATING CAPITAL									3.74
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									86.67

TABLE 21.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.20	.46
OPERATOR LABOR	HOUR	2.30	2.33	5.35
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.24	1.00	3.24
TRACTOR	ACRE	5.66	1.00	5.66
INT ON OP CAP	ACRE	3.74	1.00	3.74
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				67.88
RETURNS ABOVE DIRECT EXPENSES				81.62
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	6.21	1.00	6.21
TRACTOR	ACRE	7.17	1.00	7.17
TOTAL FIXED EXPENSE				18.79
TOTAL SPECIFIED EXPENSES				86.67
NET RETURN				62.83

TABLE 22 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.30	.36	.08	.13	.23	17.50	.00	18.60
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	9.35	.00	12.10
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.60	.73	.32	.60	.46	.00	.00	2.71
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.39	.47	.26	.49	.30	1.10	.00	3.01
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.19	7.49	6.93	11.69	5.94	40.33	4.58	83.14
INTEREST ON OPERATING CAPITAL									3.75
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									86.89

TABLE 23.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.13	.30
OPERATOR LABOR	HOUR	2.30	2.06	4.74
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.30	1.00	3.30
TRACTOR	ACRE	6.19	1.00	6.19
INT ON OP CAP	ACRE	3.75	1.00	3.75
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				67.72
RETURNS ABOVE DIRECT EXPENSES				81.78
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	6.28	1.00	6.28
TRACTOR	ACRE	7.49	1.00	7.49
TOTAL FIXED EXPENSE				19.17
TOTAL SPECIFIED EXPENSES				86.89
NET RETURN				62.61

TABLE 24 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.31	.08	.13	.23	17.50	.00	18.49
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.19	.25	.03	.06	.18	.00	.00	.71
PLANT + PRE	5	.64	.81	.60	1.33	1.21	9.64	.00	14.25
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.68	.86	.27	.53	.64	.00	.00	2.99
CULTIVATE LATE	6	.92	1.17	.38	.72	.87	.00	.00	4.07
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	4.55	.00	5.39
CULT + POST LATE	7	.58	.74	.31	.60	.55	1.39	.00	4.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.33	8.02	7.26	12.43	7.49	42.01	4.58	88.13
INTEREST ON OPERATING CAPITAL									3.87
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									92.01

TABLE 25.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	2.60	5.99
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	3.02	5.53
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.33	4.55
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.63	1.00	3.63
TRACTOR	ACRE	6.33	1.00	6.33
INT ON OP CAP	ACRE	3.87	1.00	3.87
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.55
RETURNS ABOVE DIRECT EXPENSES				77.95
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	7.02	1.00	7.02
TRACTOR	ACRE	8.02	1.00	8.02
TOTAL FIXED EXPENSE				20.45
TOTAL SPECIFIED EXPENSES				92.01
NET RETURN				57.49

TABLE 26 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/3	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.30	.36	.08	.13	.23	17.50	.00	18.60
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.53	.64	.53	1.15	.81	9.64	.00	13.30
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.63	.76	.33	.63	.48	.00	.00	2.84
CULTIVATE LATE	6	.84	1.02	.44	.84	.64	.00	.00	3.78
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	4.55	.00	5.39
CULT + POST LATE	7	.51	.62	.33	.64	.39	1.39	.00	3.88
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.83	8.26	7.33	12.51	6.54	42.01	4.58	88.07
INTEREST ON OPERATING CAPITAL									3.88
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									91.95

TABLE 27.ESTIMATED COST AND NET RETURNS PER ACRE SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.18	.40
OPERATOR LABOR	HOUR	2.30	2.28	5.23
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	3.02	5.53
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.33	4.55
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.70	1.00	3.70
TRACTOR	ACRE	6.83	1.00	6.83
INT ON OP CAP	ACRE	3.88	1.00	3.88
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.17
RETURNS ABOVE DIRECT EXPENSES				78.33
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	7.10	1.00	7.10
TRACTOR	ACRE	8.26	1.00	8.26
TOTAL FIXED EXPENSE				20.78
TOTAL SPECIFIED EXPENSES				91.95
NET RETURN				57.55

TABLE 28 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	12	.56	.66	.37	.68	.53	.00	.00	2.80
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	3	.73	.86	.41	.74	.69	6.19	.00	9.63
APPLY FERT	4	.24	.29	.08	.13	.23	19.37	.00	20.35
DISK BED	4	.51	.60	.17	.29	.48	.00	.00	2.06
REBED	4	.51	.60	.17	.29	.48	.00	.00	2.06
ROW CONDITION	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	18.22	.00	21.79
CULTIVATE EARLY	5	.61	.72	.15	.29	.58	.00	.00	2.35
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.24	.29	.08	.13	.23	19.05	.00	20.02
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	.78	.00	4.29
CULTIVATE LATE	6	.49	.58	.12	.23	.46	.00	.00	1.88
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	.00	.95	.97
APPLY INS GROUND	9	.00	.00	.29	.37	.18	3.84	.00	4.69
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		9.02	10.60	26.50	44.94	16.01	88.75	54.04	249.87
INTEREST ON OPERATING CAPITAL									5.33
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									255.20

TABLE 29.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	3.68	8.47
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
DIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.25	1.00	3.25
TRACTOR	ACRE	9.02	1.00	9.02
INT ON OP CAP	ACRE	5.33	1.00	5.33
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				199.66
RETURNS ABOVE DIRECT EXPENSES				183.99
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	6.26	1.00	6.26
TRACTOR	ACRE	10.60	1.00	10.60
TOTAL FIXED EXPENSE				55.54
TOTAL SPECIFIED EXPENSES				255.20
NET RETURN				128.45

TABLE 30 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.92	.06	.21	.69	.00	.00	2.61
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	12	.34	.43	.37	.66	.32	.00	.00	2.12
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	3	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	19.37	.00	20.37
DISK BED	4	.32	.40	.17	.29	.30	.00	.00	1.48
REBED	4	.32	.40	.17	.29	.30	.00	.00	1.48
ROW CONDITION	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.48	.61	.45	1.00	.91	18.22	.00	21.67
CULTIVATE EARLY	5	.51	.65	.21	.40	.48	.00	.00	2.25
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.24	.31	.08	.13	.23	19.05	.00	20.04
CULT + POST EARLY	6	.58	.74	.31	.60	.55	.78	.00	3.57
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.53	8.28	26.83	45.57	13.83	88.75	54.04	243.63
INTEREST ON OPERATING CAPITAL									5.13
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									248.76

TABLE 31.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	2.69	6.18
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.58	1.00	3.58
TRACTOR	ACRE	6.53	1.00	6.53
INT ON OP CAP	ACRE	5.13	1.00	5.13
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				194.91
RETURNS ABOVE DIRECT EXPENSES				188.74
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	6.90	1.00	6.90
TRACTOR	ACRE	8.28	1.00	8.28
TOTAL FIXED EXPENSE				53.85
TOTAL SPECIFIED EXPENSES				248.76
NET RETURN				134.89

TABLE 32 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.90	1.09	.06	.21	.69	.00	.00	2.95
CHISEL PLOW 16 FT	11	66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	12	42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	19.37	.00	20.48
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
REBED	4	.30	.36	.17	.29	.23	.00	.00	1.35
ROW CONDITION	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	18.22	.00	20.97
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.30	.36	.08	.13	.23	19.05	.00	20.15
CULT + POST EARLY	6	.54	.65	.35	.68	.41	.78	.00	3.42
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.88	8.32	26.94	45.72	12.56	88.75	54.04	243.21
INTEREST ON OPERATING CAPITAL									5.12
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									248.33

TABLE 33.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.29	5.27
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.69	1.00	3.69
TRACTOR	ACRE	6.88	1.00	6.88
INT ON OP CAP	ACRE	5.12	1.00	5.12
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				194.29
RETURNS ABOVE DIRECT EXPENSES				189.36
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	7.05	1.00	7.05
TRACTOR	ACRE	8.32	1.00	8.32
TOTAL FIXED EXPENSE				54.04
TOTAL SPECIFIED EXPENSES				248.33
NET RETURN				135.32

TABLE 34 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
DEEP CHISEL 7 SHANK	11	1.10	1.30	.41	.68	1.03	.00	.00	4.52
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	12	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	12	.73	.86	.41	.74	.69	6.19	.00	9.63
DISK BED	12	.51	.60	.17	.29	.48	.00	.00	2.06
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
APPLY FERT	4	.24	.29	.08	.13	.23	19.37	.00	20.35
DISK BED	5	.51	.60	.17	.29	.48	.00	.00	2.06
REBED	5	.51	.60	.17	.29	.48	.00	.00	2.06
ROW CONDITION	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	18.22	.00	21.79
CULTIVATE EARLY	5	.61	.72	.15	.29	.58	.00	.00	2.35
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.24	.29	.08	.13	.23	19.05	.00	20.02
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	3.06	.00	6.57
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	3.06	.00	6.57
CULTIVATE LATE	6	.49	.58	.12	.23	.46	.00	.00	1.88
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		11.50	13.51	28.53	47.94	19.07	102.47	54.04	277.06

TABLE 35.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	4.69	10.79
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	2.05	11.87
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
FERT AMM NITRATE	CWT	6.35	3.00	19.05
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	18.69	18.13
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
EQUIPMENT	ACRE	4.12	1.00	4.12
TRACTOR	ACRE	11.50	1.00	11.50
INT ON OP CAP	ACRE	6.48	1.00	6.48
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				222.09
RETURNS ABOVE DIRECT EXPENSES				161.56
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	7.78	1.00	7.78
TRACTOR	ACRE	13.51	1.00	13.51
TOTAL FIXED EXPENSE				61.45
TOTAL SPECIFIED EXPENSES				283.54
NET RETURN				100.11

TABLE 36 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.92	.06	.21	.69	.00	.00	2.61
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	12	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	12	.44	.55	.52	.96	.41	6.19	.00	9.08
DISK BED	12	.32	.40	.17	.29	.30	.00	.00	1.48
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
APPLY FERT	4	.24	.31	.08	.13	.23	19.37	.00	20.37
DISK BED	5	.32	.40	.17	.29	.30	.00	.00	1.48
REBED	5	.32	.40	.17	.29	.30	.00	.00	1.48
ROW CONDITION	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.48	.61	.45	1.00	.91	18.22	.00	21.67
CULTIVATE EARLY	5	.51	.65	.21	.40	.48	.00	.00	2.25
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.24	.31	.08	.13	.23	19.05	.00	20.04
CULT + POST EARLY	6	.58	.74	.31	.60	.55	3.06	.00	5.84
CULT + POST EARLY	6	.58	.74	.31	.60	.55	3.06	.00	5.84
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		8.40	10.65	29.07	48.94	16.13	102.47	54.04	269.71

TABLE 37.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	3.46	7.95
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	2.05	11.87
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
FERT AMM NITRATE	CWT	6.35	3.00	19.05
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	18.69	18.13
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
EQUIPMENT	ACRE	4.66	1.00	4.66
TRACTOR	ACRE	8.40	1.00	8.40
INT ON OP CAP	ACRE	6.18	1.00	6.18
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				216.30
RETURNS ABOVE DIRECT EXPENSES				167.35
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	8.79	1.00	8.79
TRACTOR	ACRE	10.65	1.00	10.65
TOTAL FIXED EXPENSE				59.60
TOTAL SPECIFIED EXPENSES				275.89
NET RETURN				107.76

TABLE 38 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.90	1.09	.06	.21	.69	.00	.00	2.95
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	12	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	12	.54	.65	.52	.96	.41	6.19	.00	9.28
DISK BED	12	.30	.36	.17	.29	.23	.00	.00	1.35
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
APPLY FERT	4	.30	.36	.08	.13	.23	19.37	.00	20.48
DISK BED	5	.30	.36	.17	.29	.23	.00	.00	1.35
REBED	5	.30	.36	.17	.29	.23	.00	.00	1.35
ROW CONDITION	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	18.22	.00	20.97
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.30	.36	.08	.13	.23	19.05	.00	20.15
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.06	.00	5.70
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.06	.00	5.70
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL PRECISION COSTS		8.20	10.30	28.20	48.17	14.86	102.47	50.04	269.47

TABLE 39.ESTIMATED COST AND NET RETURNS PER ACRE
COTTON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.97	6.84
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	2.05	11.87
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
FERT AMM NITRATE	CWT	6.35	3.00	19.05
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	18.69	18.13
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
EQUIPMENT	ACRE	4.81	1.00	4.81
TRACTOR	ACRE	8.92	1.00	8.92
INT ON OP CAP	ACRE	6.19	1.00	6.19
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				215.69
RETURNS ABOVE DIRECT EXPENSES				167.96
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	9.02	1.00	9.02
TRACTOR	ACRE	10.79	1.00	10.79
TOTAL FIXED EXPENSE				59.96
TOTAL SPECIFIED EXPENSES				275.65
NET RETURN				108.00

TABLE 40 .ESTIMATED COST PER ACRE, WHEAT FOR GRAIN, 115-150 DBHP TRACTOR, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY FERT	9	.30	.36	.08	.13	.23	15.50	.00	16.60
CHISEL PLOW 16 FT	9	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	10	.42	.51	.37	.66	.32	.00	.00	2.28
SECTION HARROW	10	.30	.36	.03	.06	.23	.00	.00	.98
GRAIN DRILL 32 FT	10	.30	.36	.66	1.29	.46	8.80	.00	11.86
APP FERT - AIR	3	.00	.00	.00	.00	.07	19.05	2.25	21.37
APP 2,4-D - AIR	4	.00	.00	.00	.00	.02	1.89	3.50	5.41
COMBINE 20 FT	6	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	6	.00	.00	.00	.00	.00	.00	.81	.81
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		1.98	2.39	4.35	7.16	2.39	45.24	6.56	70.07
INTEREST ON OPERATING CAPITAL									2.64
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.71

TABLE 41.ESTIMATED COST AND NET RETURNS PER ACRE
WHEAT FOR GRAIN, 115-150 DBHP TRACTOR,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.34
OPERATOR LABOR	HOUR	2.30	.66	1.52
SPECIAL LABOR	HOUR	2.30	.23	.53
FERT 8-24-24	CWT	7.75	2.00	15.50
SEED	LB	.10	88.00	8.80
FERT AMM NITRATE	CWT	6.35	3.00	19.05
APP FERT - AIR	CWT	2.25	1.00	2.25
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.50	1.00	3.50
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	1.30	1.00	1.30
TRACTOR	ACRE	1.98	1.00	1.98
INT ON OP CAP	ACRE	2.64	1.00	2.64
HAUL	BU	.03	30.00	.81
TOTAL DIRECT EXPENSE				63.16
RETURNS ABOVE DIRECT EXPENSES				34.34
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	2.49	1.00	2.49
TRACTOR	ACRE	2.39	1.00	2.39
TOTAL FIXED EXPENSE				9.55
TOTAL SPECIFIED EXPENSES				72.71
NET RETURN				24.79

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Bulletin 851

Cost of Production Estimates for The Black Belt of Northeast Mississippi, 1977

By

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February 1977

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FOREWORD

)ata presented in this report
re developed to support research
the Department of Agricultural
onomics, Mississippi
ricultural and Forestry Experi-
nt Station and the Commodity
onomics Division, Economic
search Service, USDA and to
vide others with current infor-
tion on production practices
l costs associated with various
ricultural enterprises.

This report updates Bulletin 845, "Crop Budgets For The Black Belt of northeast Mississippi" [5]. Users interested in data collection procedures and budget estimation techniques are referred to earlier publications [1, 8, 9].

Readers are cautioned that costs presented are labeled "Total Specified Costs". Charges for land, management, and general farm overhead are *not* included. Farmers should make 1977 plan
ting decisions based on "return
above direct expenses". This would
be a one-year short run decision
Long run decisions must be base
upon returns above total expense
Total expenses include both direc
and fixed expenses (estimated i
this publication) plus all othe
expenses such as land, manag
ment, and general farm overhea

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COST OF PRODUCTION ESTIMATES FOR THE BLACK BELT OF NORTHEAST MISSISSIPPI, 1977

INTRODUCTION

This publication provides information on production practices and costs for selected crops grown in the Black Belt of northeast Mississippi. Current production practices and costs of the more important agricultural enterprises are routinely needed by researchers, farmers, extension specialists, and other workers in agriculture. This publication is one of a series of recent publications [2, 3, 4, 5, 6, 7, 8, 9] dealing with costs of crop production in Mississippi.

ENTERPRISE BUDGETS

Each budget lists and describes all operations used to produce the crop. If an operation is followed by a times sign and a whole number (such as X2), it is repeated that number of times. In such cases, the listed cost is the cost of a single operation multiplied by the number of times it is performed. If a fraction is used, the operation is performed less often than annually. Thus, "apply lime X1/4", means that lime would be applied every 4 years, and the listed costs are one-fourth of total cost of that operation. The month the operation usually is performed is indicated along with labor costs, direct and fixed tractor and equipment costs, materials costs, and miscellaneous costs.

Labor is charged at a rate of $2.30 per hour. A charge of 9 percent for interest on operating capital is included. Operating capital includes all items except fixed costs and assumes that operating capital is borrowed. Interest charges on operating capital are for the period of time used and not for the whole year. Costs for self-propelled harvesting equipment appear under equipment costs. Miscellaneous costs include charges for custom services, hauling costs, ginning, drying, and storage costs where appropriate.

Tractor and machinery prices and related data are included in Tables 1 and 2; prices for chemicals, planting seed, fertilizers and other materials in Tables 3 and 4; and charges for aerial application in Table 5.[1]

These budgets do not include such items as taxes, insurance, drainage, bookkeeping, pickup truck expenses, land rent charges, management, or other overhead expenses.

The 90-100 DBHP[2] tractor is the prime power source for all 4-row budgets. The prime power source for all 6-row budgets is the 100-115 DBHP tractor. The 115-150 DBHP tractor was used for 8-row budgets.

Enterprise budgets are presented for two levels of inputs for each of the most important crops grown in the area. We used farm survey data to identify two groups of farmers. Practices reported by the larger group were assumed to be those most common in the area and we designated these as "usual input practices". A relatively small number of farmers reported the use of more weed and insect control than is common in the area and we designated these as "high input practices". Farmers who use these levels of inputs are striving for higher yields, or they are having more severe weed and insect problems than are generally encountered. It cannot be assumed that this level of inputs is more desirable, or reflects a more advanced technology.

Each budget is summarized in two budget tables. For example, Tables 6 and 7 are a set.[3] The first table of each set reports estimated cost per acre on an operation by

[1] *For convenience all tables are placed after the text.*

[2] *Drawbar horsepower, Nebraska rating.*

[3] *Tables 6 and 7 contain summaries of individual crop budgets (Table 8-41).*

operation basis. The figures in the body of these tables are dollars. These tables allow the user to take a quick look at the cost of producing a crop on an operation by operation basis.

The second table of each set of individual budgets reports estimated income and includes the quantity and price of each input used. By referring to the second table of each set the reader can determine the type of fertilizer, the price, the quantity applied, etc.

Machinery charges are divided into three categories---special equipment, equipment and tractor. Special equipment refers to self-propelled equipment; i.e., combines, cotton pickers and high clearance sprayers. Equipment refers to towed equipment. Labor also is divided into three categories. Operator labor denotes tractor driver labor. Special labor refers to driver time for self-propelled equipment and common labor is all other labor.

Soybeans

All operations and materials used for producing soybeans under "usual input practices" (Tables 8-17) are identical. Differences in these budgets result from differences in tractor and equipment size, row spacing, and quantity of banded materials.

Usual input practices---Tractor, equipment and labor charges for a given operation differ from budget to budget because of differences in tractor and equipment size. Changes in equipment size modify labor (tractor driver time) requirements per acre and this results in variations in the labor charge per acre.

Liming is charged at an annual rate of $3.87---a charge that reflects a custom rate of $7.75 per ton for two tons applied per acre each 4 years. Operations involving only a tractor and towed equipment are self-explanatory. Tractor and equipment direct and fixed costs for such operations are presented along with a labor charge. This labor charge is for the tractor driver.

The first operation involving material is the disk and incorporate operation (entitled "DISK + INCOR"). The material charge of $6.19 reflects 1.0 pounds (active ingredient) of Treflan®. The "APPLY FERT" operation shows a material charge of $17.50. This reflects the application of 250 pounds of 0-24-24 (60 pounds of P and K).

The planting operation shows a material charge of $8.25. This reflects 55 pounds of seed, based on a 50 pound planting rate and assumed 10 percent replanting.

Budgets for "usual input practices" with 38-inch row spacing assume that the producer applies Basagran® to only one-fourth of his acreage and the material cost of 86 cents reported for "SPRAY HCLEAR 14 ROW" is for only .0625 pounds of Basagran per acre. The cultivate and postlate operation for 38-inch row spacing indicates a material charge of $1.10 for .6 pounds of Dinitro.

Two materials were increased to account for the additional linear feet of row per acre with 30-inch row spacing. The operation labeled "SPRAY HCLEAR 14 ROW" shows a material charge of $1.14 for .0828 pounds of Basagran instead of the .0625 pounds which was specified for the 38-inch row budgets. The other change involves Dinitro® in the operation labeled "CULT + POST LATE". The material charge of $1.39 is for .76 pounds of Dinitro instead of the .6 pounds of Dinitro specified for the 38-inch row budgets. Seeding rate was not changed as the row width was narrowed.

High input practices---Budgets for "high input practices" (Tables 18-27) include four operations in the fall as opposed to only one in the "usual input practices" budgets. Most of this is a simple shift of spring seedbed operations to the fall. However, a deep chisel operation is added.

Three other differences occur. A preemerge herbicide was added to the planting operation. The materials charge of $9.35 reflects a seed charge of $8.25 (same as "usual input practices") plus 1 pounds of Dinitro per acre priced at $1.83 per pound or $1.10 per acre. A herbicide application at cracking stage was added. This operation is labeled "SPRAY HCLEAR 1 ROW". It appears immediately after the "PLANT + PRE" operation. This operation includes a material charge of $2.74 for 1 pounds of Dinitro. The other difference involves Basagran. This operation also is labeled "SPRAY HCLEAR 14 ROW". The "high input practices" budgets include the treatment of the total acreage with Basagran and the material charge of $3.44 is for .25 pounds of Basagran per acre.

Producing soybeans in 30-inch rows requires more of some materials because of the additional linear feet of row per acre. More Dinitro is indicated for the operations labeled "PLANT + PRE" and "CULT + POST LATE". Additional Basagran is specified for the operation labeled "SPRAY HCLEAR 14 ROW".

Cotton

The "usual input practices" budgets (Tables 28-33) specify only three operations in the fall---six fall operations are included in the "high input practices" budgets (Tables 34-39). Most of the

rations are moved from spring all but a deep-chisel operation is ed in fall. A spring re-bed ration is added to the "high ut practices" budget.

Usual input practices---The first ration specifying a materials t is disk and incorporate. It ludes a charge of $6.19 for 1.0 nds of Treflan. The first PPLY FERT" includes a terial charge of $19.37 for 250 nds of 8-24-24. "PLANT + PRE" s a material charge of $18.22 for 5 pounds of Cotoran®, .3 pounds Temik®, .1 pound of Soil Treater XX® (fungicide), and 27.5 pounds seed (based on a 25 pound ding rate and a 10 percent planting). The second "APPLY ERT" includes a material charge $19.05---for 300 pounds of amnium nitrate.

The material charge of $.78 for "CULT + POST EARLY" is for .93 pounds of MSMA. The two "CULT + POST LATE" operations each include a charge for .21 pounds of KARMEX (WP)®. "APPLY DEFOLIATE" specifies the application of 1.43 pounds of DEF®.

High input practices---These budgets specify two cultivate and post operations whereas the "usual input practices" budgets specify only one cultivate and post operation. Additionally, the postemerge herbicide charge of $3.06 is based on a different treatment---.93 pints of MSMA plus surfacant[2] and .4 pounds of Cotoran. The "high input practices" budgets also add two ground applications of MSMA plus surfacant. This operation is labeled "APPLY MSMA GROUND X2". The material charge of $3.20 is for two pints of MSMA plus surfacant per application.

Insecticide programs---The "usual input practices" budgets specify 13 insecticide treatments and the "high input practices" budgets list 15 applications.

The "usual input practices" insecticide program is: Temik (.30 pound) applied at planting, .20 pound of Bidrin®, six applications of .25 pound guthion and five applications of 2.00 pounds toxaphene plus 1.00 pound methyl parathion.

The "high input practices" insecticide program is identical to the "usual input practices" program except that two additional applications of toxaphene plus methyl parathion are specified.

Wheat

Tables 40 and 41 report the imated per acre cost of produc- wheat. The prime power source wheat production is the 115-150 HP-tractor, the same tractor at was used for the 8-row soybean d cotton budgets. The first opera- n labeled "APPLY FERT" re- ires a material charge of $15.50 for 200 pounds of 8-24-24. The planting operation includes a material charge of $8.80 for 88 pounds of seed (based upon an 80 pound seeding rate and a 10 percent replanting). The second application of fertilizer requires a material charge of $19.05 for 300 pounds of ammonium nitrate. The charge of $1.89 for "APP 2, 4-D AIR" includes the cost of one pound of 2, 4-D. Total material cost for producing one acre of wheat is estimated at $45.24. Fertilizer costs are $34.55 or 76 percent of total material cost.

SPECIFIED COSTS AND NET RETURNS

Ranges of total specified costs ncluding interest on operating pital) are:

ybeans

$70.53 for "usual input prac- es", 6-row equipment and 38- ch row spacing to $92.01 for gh input practices", 6-row uipment and 30-inch row spac- g (Table 6), and

otton

$248.33 for "usual input prac- es" with 8-row equipment to $283.54 for "high input practices" with 4-row equipment.

Total specified cost of producing an acre of wheat is $72.71.

Net returns (returns to land, management and farm overhead) per acre of soybeans yielding 23 bushels and selling for $6.50 range from $57.49 for "high input practices", 6-row equipment and 30-inch row spacing to $78.97 for "usual input practices", 6-row equipment and 38-inch row spacing (Table 7).

Returns to land, management and farm overhead per acre of cotton yielding 550 pounds of lint selling for 62 cents/pound and 853 pounds of seed selling at five cents/pound range from $100.11 for "high input practices" with 4-row equipment to $135.32 for "usual input practices" with 8-row equipment.

A 30-bushel per acre wheat crop selling at $3.25 per bushel yields a net return of $24.79.

Other combinations of yields and prices result in significantly different net returns; for example,

[2]*One pint of MSMA plus surfacant contains .75 pounds of active MSMA.*

an 18 bushel bean crop produced with 4-row equipment on 38-inch row spacing with "usual input practices" will result in an estimated net return of $23.72 per acre if beans sell for $5.50, a net return of $59.72 if beans sell $7.50 (Table 7).

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	Size or description	Performance rate per acre	Length of life	Average annual use	Estimated 1977 price	Repair costs % of new cost	Direct costs per hour	Direct costs per acre	Fixed costs per hour	Fixed costs per acre
		Hours	Years	Hours	Dollars	Percent	Dollars			
r	90-100		12	700	15,700	65	2.45	---	2.88	---
r	100-115		12	700	16,800	55	2.43	---	3.08	---
r	115-150		12	700	19,800	52	3.00	---	3.63	---
r	>150		12	700	24,400	49	3.64	---	4.47	---
r (4-wheel drive)	<200		12	700	34,800	49	4.47	---	6.38	---
r (4-wheel drive)	>200		12	700	41,800	49	5.54	---	7.66	---
shredder	2-row	.30	10	185	885	40	.19	.06	.69	.21
shredder	4-row	.24	10	185	2,710	40	.59	.14	2.12	.51
ler	2-row	.62	15	100	650	100	.43	.27	.73	.45
ler	3-row	.52	15	100	1,050	100	.71	.37	1.18	.62
hisel	7-shank	.45	15	100	1,355	100	.90	.41	1.51	.68
hisel	11-shank	.40	15	100	2,240	100	1.49	.60	2.50	1.00
plow	12 ft.	.30	12	150	1,150	70	.45	.13	.98	.30
plow	16 ft.	.22	12	150	1,885	70	.73	.16	1.61	.35
plow	21 ft.	.14	12	150	2,945	70	1.15	.16	2.52	.35
breaker	6-row	.14	12	160	2,355	80	.98	.14	1.89	.26
breaker	8-row	.11	12	160	2,945	80	1.23	.13	2.36	.26
ard plow (2-way)	4-bottom	.30	15	120	3,060	80	1.36	.41	2.85	.85
harrow	14 ft.	.23	10	180	3,650	80	1.62	.37	2.94	.68
harrow	21 ft.	.14	10	180	5,890	80	2.62	.37	4.74	.66
harrow	28 ft.	.10	10	180	8,240	80	3.66	.37	6.64	.66
on harrow	6-row	.10	10	200	885	75	.33	.03	.64	.06
on harrow	8-row	.08	10	200	1,120	75	.42	.03	.81	.06
pulverizer	6-row	.15	10	100	3,300	75	2.47	.37	4.78	.72
pulverizer	8-row	.12	10	100	5,005	75	3.75	.45	7.26	.87
cultivator	12 ft.	.20	10	100	1,175	65	.76	.15	1.70	.34
cultivator	21 ft.	.10	10	100	2,290	65	1.49	.15	3.32	.33
cultivator	42 ft.	.06	10	100	5,315	70	3.72	.22	7.71	.46
spreader	---	.10	8	100	765	80	.76	.08	1.30	.13
bedder	4-row	.21	8	160	1,315	80	.82	.17	1.40	.29
bedder	6-row	.13	8	160	2,120	80	1.32	.17	2.25	.29
bedder	8-row	.10	8	160	2,710	80	1.69	.17	2.88	.29
bedder & fertilizer	6-row	.16	8	160	2,530	80	1.58	.25	2.69	.43
& Incor	14 ft.	.30	10	180	4,000		1.78	.41	3.22	.74
bedder & fertilizer	8-row	.12	8	160	3,240	80	2.02	.24	3.44	.41
drill	12 ft.	.24	10	100	2,825	70	1.98	.47	4.10	.98
er & preemerge rig	4-row	.22	12	150	3,855	70	1.50	.33	3.30	.73
er & preemerge rig	6-row	.18	12	150	5,890	70	2.29	.41	5.04	.91
er & preemerge rig	8-row	.12	12	150	7,650	70	2.97	.36	6.54	.79
er	4-row	.20	12	150	3,640	70	1.42	.28	3.11	.62
er	6-row	.14	12	150	5,300	70	2.06	.29	4.53	.63
ter	8-row	.10	12	150	7,065	70	2.75	.27	6.04	.60
ivator-early	4-row	.25	12	200	1,820	80	.61	.15	1.17	.29
ivator-early	6-row	.21	12	200	2,945	80	.98	.21	1.89	.40
ivator-early	8-row	.16	12	200	4,710	80	1.57	.25	3.02	.48
ivator-late	4-row	.20	12	200	1,820	80	.61	.12	1.17	.23
ivator-late	6-row	.14	12	200	2,945	80	.98	.14	1.89	.26
ivator-late	8-row	.10	12	200	4,710	80	1.57	.16	3.02	.30
ivator & postemerge rig-early	4-row	.35	12	200	2,450	80	.82	.29	1.57	.55
ivator & postemerge rig-early	6-row	.24	12	200	3,885	80	1.29	.31	2.49	.60
ivator & postemerge rig-early	8-row	.18	12	200	5,890	80	1.96	.35	3.78	.69
ivator & postemerge rig-late	4-row	.28	12	200	2,450	80	.82	.23	1.57	.44
ivator & postemerge rig-late	6-row	.18	12	200	3,885	80	1.29	.23	2.49	.45
ivator & postemerge rig-late	8-row	.13	12	200	5,890	80	1.96	.26	3.78	.49
yer-high clearance	14-row	.08	8	350	9,560	80	3.62	.29	4.64	.37
on picker-first picking	2-row	.75	10	200	42,900	75	18.17	13.62	31.10	23.33
on picker-second picking	2-row	.55	10	200	42,900	75	18.17	9.99	31.10	17.11
ine - soybean/wheat	20 ft.	.23	8	300	35,800	80	13.27	3.05	20.29	4.67
on trailer	10-bale	---	12	200	2,590	25	.27	---	1.66	---

Item	Size or description	Perform-ance rate per acre	Length of life	Average annual use	Estimated 1977 price	Repair costs	Direct costs per hour	Direct costs per acre	Total per hour	Total per acre
		Hours	Years	Hours	Dollars	% of purchase price	Dollars		Dollars	
Planter	6-row	.19	12	150	5,300	70	2.06	.39	4.53	.86
Planter & preemerge rig	6-row	.24	12	150	5,890	70	2.29	.55	5.04	1.21
Cultivator-early	6-row	.28	12	200	2,945	80	.98	.27	1.89	.53
Cultivator-late	6-row	.19	12	200	2,945	80	.98	.19	1.89	.36
Cultivator & postemerge rig-early	6-row	.31	12	200	3,885	80	1.29	.40	2.49	.77
Cultivator & postemerge rig-late	6-row	.24	12	200	3,885	80	1.29	.31	2.49	.60
Planter	8-row	.14	12	150	7,065	70	2.75	.38	6.04	.85
Planter & preemerge rig	8-row	.16	12	150	7,655	70	2.98	.48	6.55	1.05
Cultivator-early	8-row	.21	12	200	4,710	80	1.57	.33	3.02	.63
Cultivator-late	8-row	.14	12	200	4,710	80	1.57	.22	3.02	.42
Cultivator & postemerge rig-early	8-row	.24	12	200	5,885	80	1.96	.47	3.78	.91
Cultivator & postemerge rig-late	8-row	.17	12	200	5,885	80	1.96	.33	3.78	.64

Table 3. Estimated materials prices, Black Belt of Northeast Mississippi, 1977.

Item	Unit[1/]	Cost
		Dollars
Defoliant:		
Def	lb.	1.67
Folex	lb.	1.67
Sodium chlorate	lb.	.48
Herbicides:		
Amiben	lb.	5.47
Atrazine	lb.	3.41
Basagran	lb.	13.78
Caparol (WP)	lb.	3.89
Caparol + MSMA	pt.	1.28
Cotoran	lb.	5.79
2,4-D	lb.	1.89
Dowpon	lb.	1.69
DSMA	lb.	1.00
Dyanap	pt.	.75
Glytac	lb.	1.24
Karmex (DL)	lb.	4.11
Karmex (WP)	lb.	3.25
Lasso	lb.	3.56
Lorox	lb.	6.60
MSMA	lb.	.84
MSMA + Surfactant	pt.	.80
Ordram	lb.	3.10
Paraquat	lb.	17.10
Prefar	lb.	3.62
Probe	lb.	9.67
Propanil	lb.	2.28
Propazine	lb.	3.73
Sencor	lb.	12.16
Surfactant	pt.	.49
Dinitro	lb.	1.83
Tenoran	lb.	5.96
Treflan	lb.	6.19
2,4,5-T	lb.	4.04
Fungicides:		
Soil Treater XXX	lb.	1.15
Stauffer 30-30	lb.	1.15
Insecticides:		
Azodrin	lb.	4.20
Bidrin	lb.	4.50
Cygon 267	lb.	4.36
Disyston	lb.	3.67
Disyston + Terraclor	lb.	.44
Endrin + Methyl parathion	pt.	.97
Furadan	lb.	9.17
Guthion	lb.	5.02
Lannate	lb.	8.31
Methyl parathion	lb.	1.62
Sevin	lb.	2.26
Temik	lb.	11.47
Toxaphene	lb.	.66
Toxaphene + Methyl parathion	pt.	.97
Lo-Drift	pt.	1.74

[1/] Expressed on a per pound active basis except for materials priced in volume and fungicides which are priced on a basis of formulated material.

Table 4. Estimated seed, fertilizer, and lime prices, Black Belt of Northeast Mississippi, 1977.

Item	Unit	Estimated price
		Dollars
Seed:		
Alfalfa	lb.	1.25
Corn	lb.	.55
Cotton, Triple treated	lb.	.27
Grain sorghum	lb.	.25
Oat	lb.	.05
Soybean	lb.	.15
Wheat	lb.	.10
Rice	lb.	.12
Fertilizer:		
0-24-24	cwt.	7.00
8-24-24	cwt.	7.75
13-13-13	cwt.	6.60
Ammonium nitrate, 33%	cwt.	6.35
Anhydrous ammonia, 82%	cwt.	7.50
Urea, solid	cwt.	7.15
Lime (custom)	ton	7.75

Table 5. Summary of aerial application costs, Black Belt of Northeast Mississippi, 1977.

Application activity	Cost per acre	Cost per 100 pounds
	Dollars	Dollars
Fertilizer	---	2.25
Insecticide	.95	---
Lannate	1.65	---
Defoliate	1.65	---
Seed	---	2.25
Herbicide	1.65	---
2,4-D	3.50	---
2,4,5-T	3.50	---
Propanil	2.50	---

Table 6. Summary of estimated cost per acre for soybeans, cotton and wheat, Black Belt of Northeast Mississippi, 1977.[1/]

Crop description	Row space	Equipment size	Tractor Direct cost	Tractor Fixed cost	Equipment Direct cost	Equipment Fixed cost	Labor cost	Material cost	Misc. cost	Total specified cost	Interest on operating capital	Total cost
	inches		dollars									
Soybeans- usual input practices	38	4-row	6.08	7.14	5.23	8.95	6.78	33.90	4.58	72.67	2.77	75.44
	38	6-row	4.24	5.37	5.49	9.41	4.94	33.90	4.58	67.93	2.60	70.53
	38	8-row	4.62	5.59	5.56	9.53	4.37	33.90	4.58	68.15	2.60	70.76
	30	6-row	4.76	6.03	5.79	10.04	5.56	34.47	4.58	71.24	2.67	73.91
	30	8-row	5.14	6.22	5.89	10.23	4.87	34.47	4.58	71.40	2.67	74.08
Soybeans- high input practices	38	4-row	7.72	9.08	6.32	10.63	8.70	40.33	4.58	87.37	3.92	91.29
	38	6-row	5.66	7.17	6.87	11.62	6.71	40.33	4.58	82.94	3.74	86.67
	38	8-row	6.19	7.49	6.93	11.69	5.94	40.33	4.58	83.14	3.75	86.89
	30	6-row	6.33	8.02	7.26	12.43	7.49	42.01	4.58	88.13	3.87	92.01
	30	8-row	6.83	8.26	7.33	12.51	6.54	42.01	4.58	88.07	3.88	91.95
Cotton- usual input practices	38	4-row	9.02	10.60	26.50	44.94	16.01	88.75	54.04	249.87	5.33	255.20
	38	6-row	6.53	8.28	26.83	45.57	13.63	88.75	54.04	243.63	5.13	248.76
	38	8-row	6.88	8.32	26.94	45.72	12.56	88.75	54.04	243.21	5.12	248.33
Cotton- high input practices	38	4-row	11.50	13.51	28.53	47.94	19.07	102.47	54.04	277.06	6.48	283.54
	38	6-row	8.40	10.56	29.07	48.94	16.13	102.47	54.04	269.71	6.18	275.89
	38	8-row	8.92	10.79	29.22	49.17	14.89	102.47	54.04	269.44	6.19	275.63
Wheat	--	115-150 DBHP	1.98	2.39	4.35	7.16	2.39	45.24	6.56	70.07	2.64	72.71

[1/] See Tables 3-7 (pages 5-8) for costs details.

Table 7. Estimated per acre returns to land, management, and farm overhead, for soybeans, cotton and wheat, by equipment size and row space, for specified yields and prices, Black Belt of Northeast Mississippi, 1977.

Crop description	Row space	Equipment size	Yield	Price levels[1/] Low	Expected	High
	inches			------dollars------		
Soybeans- usual input practices	38	4-row	18 bu.	23.72	41.72	59.72
			23 bu.	51.06	74.06	97.06
			32 bu.	100.29	132.29	164.29
Soybeans- usual input practices	38	6-row	18 bu.	28.63	46.63	64.63
			23 bu.	55.97	78.97	101.97
			32 bu.	105.19	137.19	169.19
Soybeans- usual input practices	38	8-row	18 bu.	28.40	46.40	64.40
			23 bu.	55.74	78.74	101.74
			32 bu.	104.96	136.96	168.96
Soybeans- usual input practices	30	6-row	18 bu.	25.25	43.25	61.25
			23 bu.	52.59	75.59	98.59
			32 bu.	101.81	133.81	165.81
Soybeans- usual input practices	30	8-row	18 bu.	25.08	43.08	61.08
			23 bu.	52.42	75.42	98.42
			32 bu.	101.64	133.64	165.64
Soybeans- high input practices	38	4-row	18 bu.	7.87	25.87	43.87
			23 bu.	35.21	58.21	81.21
			32 bu.	84.43	116.43	148.43
Soybeans- high input practices	38	6-row	18 bu.	12.48	30.48	48.48
			23 bu.	39.83	62.83	85.83
			32 bu.	89.05	121.05	153.05
Soybeans- high input practices	38	8-row	18 bu.	12.26	30.26	48.26
			23 bu.	39.61	62.61	85.61
			32 bu.	88.83	120.83	152.83
Soybeans- high input practices	30	6-row	18 bu.	7.15	25.15	43.15
			23 bu.	34.49	57.49	80.49
			32 bu.	83.72	115.72	147.72
Soybeans- high input practices	30	8-row	18 bu.	7.21	25.21	43.21
			23 bu.	34.55	57.55	80.55
			32 bu.	83.78	115.78	147.78
Cotton- usual input practices	38	4-row	500 lb. lint	40.37	98.12	155.87
			550 lb. lint	64.92	128.45	191.98
			600 lb. lint	89.43	158.73	228.03
Cotton- usual input practices	38	6-row	500 lb. lint	46.80	104.55	162.30
			550 lb. lint	71.36	134.89	198.42
			600 lb. lint	95.87	165.17	234.47
Cotton- usual input practices	38	8-row	500 lb. lint	47.24	104.99	162.74
			550 lb. lint	71.79	135.32	198.85
			600 lb. lint	96.30	165.60	234.90
Cotton- high input practices	38	4-row	500 lb. lint	12.03	69.78	127.53
			550 lb. lint	36.58	100.11	163.64
			600 lb. lint	61.10	130.40	199.70
Cotton- high input practices	38	6-row	500 lb. lint	19.68	77.43	135.18
			550 lb. lint	44.23	107.76	171.29
			600 lb. lint	68.74	138.04	207.34
Cotton- high input practices	38	8-row	500 lb. lint	19.91	77.66	135.41
			550 lb. lint	44.47	108.00	171.53
			600 lb. lint	68.98	138.28	207.58
Wheat	--	115-150 DBHP	25 bu.	-3.83	8.67	21.17
			30 bu.	9.79	24.79	39.79
			35 bu.	23.40	40.90	58.40

[1/] Cotton: $.52, $.62, and $.72/lb. for low, expected, and high lint price levels, respectively. Price of cottonseed was assumed to be $.04, $.05, and $.06/lb. when lint prices were $.52, $.62, and $.72 respectively. Soybeans: $5.50, $6.50, and $7.50/bu. for low, expected, and high price levels, respectively. Wheat: $2.75, $3.25, and $3.75/bu. for low, expected, and high price levels, respectively.

TABLE 8 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	4	.73	.86	.41	.74	.69	6.19	.00	9.63
APPLY FERT	4	.24	.29	.08	.13	.23	17.50	.00	18.47
FIELD CULT 12 FT	4	.49	.58	.15	.34	.46	.00	.00	2.02
SECTION HARROW	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT	5	.54	.63	.31	.68	1.01	8.25	.00	11.42
CULTIVATE EARLY	6	.61	.72	.15	.29	.58	.00	.00	2.35
CULTIVATE LATE	6	.49	.56	.12	.23	.46	.00	.00	1.86
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.69	.81	.23	.44	.64	1.10	.00	3.90
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.08	7.14	5.23	8.95	6.78	33.90	4.58	72.67
INTEREST ON OPERATING CAPITAL									2.77
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									75.44

ABLE 9.ESTIMATED COST AND NET RETURNS PER ACRE
OYBEANS, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1977.

TEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.22	.51
OPERATOR LABOR	HOUR	2.30	2.46	5.70
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.11	1.00	2.11
TRACTOR	ACRE	6.08	1.00	6.08
INT ON OP CAP	ACRE	2.77	1.00	2.77
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				59.34
RETURNS ABOVE DIRECT EXPENSES				90.16
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.19	1.00	4.19
TRACTOR	ACRE	7.14	1.00	7.14
TOTAL FIXED EXPENSE				16.10
TOTAL SPECIFIED EXPENSES				75.44
NET RETURN				74.06

TABLE 10 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	17.50	.00	18.49
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT	5	.37	.47	.32	.69	.71	8.25	.00	10.82
CULTIVATE EARLY	6	.51	.65	.21	.40	.48	.00	.00	2.25
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.44	.55	.23	.45	.41	1.10	.00	3.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.24	5.37	5.49	9.41	4.94	33.90	4.58	67.93
INTEREST ON OPERATING CAPITAL									2.60
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									70.53

E 11.ESTIMATED COST AND NET RETURNS PER ACRE
EANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
K BELT OF NORTHEAST MISSISSIPPI, 1977.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
ME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
CT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.35
OPERATOR LABOR	HOUR	2.30	1.74	4.01
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.37	1.00	2.37
TRACTOR	ACRE	4.24	1.00	4.24
INT ON OP CAP	ACRE	2.60	1.00	2.60
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				55.75
RETURNS ABOVE DIRECT EXPENSES				93.75
D EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.64	1.00	4.64
TRACTOR	ACRE	5.37	1.00	5.37
TOTAL FIXED EXPENSE				14.78
TOTAL SPECIFIED EXPENSES				70.53
NET RETURN				78.97

TABLE 12 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	17.50	.00	18.60
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT	5	.33	.40	.30	.66	.51	8.25	.00	10.44
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	.86	.00	1.07
CULT + POST LATE	7	.39	.47	.26	.49	.30	1.10	.00	3.01
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.62	5.59	5.56	9.53	4.37	33.90	4.58	68.15
INTEREST ON OPERATING CAPITAL									2.60
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									70.76

ABLE 13.ESTIMATED COST AND NET RETURNS PER ACRE
OYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
IRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.11	.25
OPERATOR LABOR	HOUR	2.30	1.54	3.54
SPECIAL LABOR	HOUR	2.30	.25	.57
APPLY LIME X1/4	TON	7.75	.50	3.87
TREFLAN	LB	6.19	1.00	6.19
FERT 0-24-24	CWT	7.00	2.50	17.50
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.06	.86
DINITRO	LB	1.83	.60	1.10
SPECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
EQUIPMENT	ACRE	2.44	1.00	2.44
TRACTOR	ACRE	4.62	1.00	4.62
INT ON OP CAP	ACRE	2.60	1.00	2.60
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				55.64
RETURNS ABOVE DIRECT EXPENSES				93.86
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
EQUIPMENT	ACRE	4.77	1.00	4.77
TRACTOR	ACRE	5.59	1.00	5.59
TOTAL FIXED EXPENSE				15.12
TOTAL SPECIFIED EXPENSES				70.76
NET RETURN				78.74

TABLE 14 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	17.50	.00	18.49
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.19	.25	.03	.06	.18	.00	.00	.71
PLANT	5	.31	.64	.43	.95	.96	8.25	.00	11.74
CULTIVATE EARLY	6	.68	.86	.27	.53	.64	.00	.00	2.99
CULTIVATE LATE	6	.46	.59	.19	.36	.44	.00	.00	2.03
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	1.14	.00	1.35
CULT + POST LATE	7	.58	.74	.31	.60	.55	1.39	.00	4.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		4.76	6.03	5.79	10.04	5.56	34.47	4.58	71.24
INTEREST ON OPERATING CAPITAL									2.67
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									73.91

15.ESTIMATED COST AND NET RETURNS PER ACRE
ANS, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1977.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
E				
OYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
T EXPENSES				
OMMON LABOR	HOUR	2.30	.21	.48
PERATOR LABOR	HOUR	2.30	1.96	4.51
PECIAL LABOR	HOUR	2.30	.25	.57
PPLY LIME X1/4	TON	7.75	.50	3.87
REFLAN	LB	6.19	1.00	6.19
ERT 0-24-24	CWT	7.00	2.50	17.50
EED	LB	.15	55.00	8.25
ASAGRAN	LB	13.78	.08	1.14
INITRO	LB	1.83	.76	1.39
PECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
QUIPMENT	ACRE	2.67	1.00	2.67
RACTOR	ACRE	4.76	1.00	4.76
NT ON OP CAP	ACRE	2.67	1.00	2.67
AUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				57.84
RETURNS ABOVE DIRECT EXPENSES				91.66
EXPENSES				
PECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
QUIPMENT	ACRE	5.28	1.00	5.28
RACTOR	ACRE	6.03	1.00	6.03
TOTAL FIXED EXPENSE				16.07
TOTAL SPECIFIED EXPENSES				73.91
NET RETURN				75.59

TABLE 16 .ESTIMATED COST PER ACRE, SOYBEANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
CHISEL PLOW 1o FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 1o FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	17.50	.00	18.60
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT	5	.46	.56	.42	.93	.71	8.25	.00	11.33
CULTIVATE EARLY	6	.63	.76	.33	.63	.48	.00	.00	2.84
CULTIVATE LATE	6	.42	.51	.22	.42	.32	.00	.00	1.89
SPRAY HCLEAR 14 ROW	6	.00	.00	.07	.09	.05	1.14	.00	1.35
CULT + POST LATE	7	.51	.62	.33	.64	.39	1.39	.00	3.88
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.14	6.22	5.89	10.23	4.87	34.47	4.58	71.40
INTEREST ON OPERATING CAPITAL									2.67
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									74.08

17.ESTIMATED COST AND NET RETURNS PER ACRE
ANS, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1977.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
E				
OYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
T EXPENSES				
OMMON LABOR	HOUR	2.30	.15	.35
PERATOR LABOR	HOUR	2.30	1.71	3.94
PECIAL LABOR	HOUR	2.30	.25	.57
PPLY LIME X1/4	TON	7.75	.50	3.87
REFLAN	LB	6.19	1.00	6.19
ERT 0-24-24	CWT	7.00	2.50	17.50
EED	LB	.15	55.00	8.25
ASAGRAN	LB	13.78	.08	1.14
INITRO	LB	1.83	.76	1.39
PECIAL EQUIPMENT	ACRE	3.12	1.00	3.12
QUIPMENT	ACRE	2.77	1.00	2.77
RACTOR	ACRE	5.14	1.00	5.14
NT ON OP CAP	ACRE	2.67	1.00	2.67
AUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				57.63
RETURNS ABOVE DIRECT EXPENSES				91.87
EXPENSES				
PECIAL EQUIPMENT	ACRE	4.76	1.00	4.76
QUIPMENT	ACRE	5.46	1.00	5.46
RACTOR	ACRE	6.22	1.00	6.22
TOTAL FIXED EXPENSE				16.45
TOTAL SPECIFIED EXPENSES				74.08
NET RETURN				75.42

TABLE 18 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.29	.09	.13	.23	17.50	.00	18.47
DEEP CHISEL 7 SHANK	11	1.10	1.30	.41	.68	1.03	.00	.00	4.52
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
CHISEL PLOW 12 FT	3	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	4	.73	.86	.41	.74	.69	6.19	.00	9.63
FIELD CULT 12 FT	4	.49	.58	.15	.34	.46	.00	.00	2.02
SECTION HARROW	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	9.35	.00	12.92
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.61	.72	.15	.29	.58	.00	.00	2.35
CULTIVATE LATE	6	.98	1.15	.24	.46	.92	.00	.00	3.75
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.69	.81	.23	.44	.64	1.10	.00	3.90
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		7.72	9.08	6.32	10.63	8.70	40.33	4.58	87.37
INTEREST ON OPERATING CAPITAL									3.92
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									91.29

LE 19.ESTIMATED COST AND NET RETURNS PER ACRE
BEANS, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.24	.56
OPERATOR LABOR	HOUR	2.30	3.15	7.25
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	2.69	1.00	2.69
TRACTOR	ACRE	7.72	1.00	7.72
INT ON OP CAP	ACRE	3.92	1.00	3.92
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.58
RETURNS ABOVE DIRECT EXPENSES				77.92
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	5.22	1.00	5.22
TRACTOR	ACRE	9.08	1.00	9.08
TOTAL FIXED EXPENSE				19.71
TOTAL SPECIFIED EXPENSES				91.29
NET RETURN				58.21

BLACK SOILS OF NORTHEAST MISSISSIPPI 1977

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.31	.08	.13	.23	17.50	.00	18.49
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.46	.61	.45	1.00	.91	9.35	.00	12.80
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.51	.65	.21	.40	.48	.00	.00	2.25
CULTIVATE LATE	6	.68	.86	.28	.52	.64	.00	.00	2.99
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.44	.55	.23	.45	.41	1.10	.00	3.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		5.66	7.17	6.87	11.62	6.71	40.33	4.58	82.94
INTEREST ON OPERATING CAPITAL									3.74
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									86.67

TABLE
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ABLE 21.ESTIMATED COST AND NET RETURNS PER ACRE
OYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.20	.46
OPERATOR LABOR	HOUR	2.30	2.33	5.35
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.24	1.00	3.24
TRACTOR	ACRE	5.66	1.00	5.66
INT ON OP CAP	ACRE	3.74	1.00	3.74
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				67.88
RETURNS ABOVE DIRECT EXPENSES				81.62
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	6.21	1.00	6.21
TRACTOR	ACRE	7.17	1.00	7.17
TOTAL FIXED EXPENSE				18.79
TOTAL SPECIFIED EXPENSES				86.67
NET RETURN				62.83

TABLE 22 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.30	.36	.08	.13	.23	17.50	.00	18.60
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	9.35	.00	12.10
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.48	.58	.25	.48	.37	.00	.00	2.16
CULTIVATE LATE	6	.60	.73	.32	.60	.46	.00	.00	2.71
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	3.44	.00	4.29
CULT + POST LATE	7	.39	.47	.26	.49	.30	1.10	.00	3.01
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.19	7.49	6.93	11.69	5.94	40.33	4.58	83.14
INTEREST ON OPERATING CAPITAL									3.75
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									86.89

LE 23.ESTIMATED COST AND NET RETURNS PER ACRE
BEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
COME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.13	.30
OPERATOR LABOR	HOUR	2.30	2.06	4.74
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	2.70	4.94
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.25	3.44
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.30	1.00	3.30
TRACTOR	ACRE	6.19	1.00	6.19
INT ON OP CAP	ACRE	3.75	1.00	3.75
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				67.72
RETURNS ABOVE DIRECT EXPENSES				81.78
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	6.28	1.00	6.28
TRACTOR	ACRE	7.49	1.00	7.49
TOTAL FIXED EXPENSE				19.17
TOTAL SPECIFIED EXPENSES				86.89
NET RETURN				62.61

TABLE 24 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.24	.31	.08	.13	.23	17.50	.00	18.49
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
CHISEL PLOW 16 FT	3	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	4	.44	.55	.52	.96	.41	6.19	.00	9.08
FIELD CULT 21 FT	4	.24	.31	.15	.33	.23	.00	.00	1.26
SECTION HARROW	5	.19	.25	.03	.06	.18	.00	.00	.71
PLANT + PRE	5	.64	.81	.60	1.33	1.21	9.64	.00	14.25
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.68	.86	.27	.53	.64	.00	.00	2.99
CULTIVATE LATE	6	.92	1.17	.38	.72	.87	.00	.00	4.07
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	4.55	.00	5.39
CULT + POST LATE	7	.58	.74	.31	.60	.55	1.39	.00	4.18
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.33	8.02	7.26	12.43	7.49	42.01	4.58	88.13
INTEREST ON OPERATING CAPITAL									3.87
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									92.01

LE 25.ESTIMATED COST AND NET RETURNS PER ACRE
BEANS, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 30 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	.26	.61
OPERATOR LABOR	HOUR	2.30	2.60	5.99
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	3.02	5.53
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.33	4.55
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.63	1.00	3.63
TRACTOR	ACRE	6.33	1.00	6.33
INT ON OP CAP	ACRE	3.87	1.00	3.87
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.55
RETURNS ABOVE DIRECT EXPENSES				77.95
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	7.02	1.00	7.02
TRACTOR	ACRE	8.02	1.00	8.02
TOTAL FIXED EXPENSE				20.45
TOTAL SPECIFIED EXPENSES				92.01
NET RETURN				57.49

TABLE 26 .ESTIMATED COST PER ACRE, SOYBEANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY LIME X1/4	11	.00	.00	.00	.00	.00	.00	3.87	3.87
APPLY FERT	11	.30	.36	.08	.13	.23	17.50	.00	18.60
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
CHISEL PLOW 16 FT	3	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	4	.54	.65	.52	.96	.41	6.19	.00	9.28
FIELD CULT 21 FT	4	.30	.36	.15	.33	.23	.00	.00	1.37
SECTION HARROW	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.53	.64	.53	1.15	.81	9.64	.00	13.30
SPRAY HCLEAR 14 ROW	5	.00	.00	.29	.37	.18	2.74	.00	3.59
CULTIVATE EARLY	6	.63	.76	.33	.63	.48	.00	.00	2.84
CULTIVATE LATE	6	.84	1.02	.44	.84	.64	.00	.00	3.78
SPRAY HCLEAR 14 ROW	6	.00	.00	.29	.37	.18	4.55	.00	5.39
CULT + POST LATE	7	.51	.62	.33	.64	.39	1.39	.00	3.88
COMBINE 20 FT	10	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	10	.00	.00	.00	.00	.00	.00	.71	.71
TOTAL SPECIFIED COSTS		6.83	8.26	7.33	12.51	6.54	42.01	4.58	88.07
INTEREST ON OPERATING CAPITAL									3.88
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									91.95

E 27.ESTIMATED COST AND NET RETURNS PER ACRE
EANS, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 30 INCH ROW SPACING,
K BELT OF NORTHEAST MISSISSIPPI, 1977.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
ME				
SOYBEANS	BU	6.50000	23.00	149.50
TOTAL INCOME				149.50
CT EXPENSES				
COMMON LABOR	HOUR	2.30	.18	.40
OPERATOR LABOR	HOUR	2.30	2.28	5.23
SPECIAL LABOR	HOUR	2.30	.39	.90
APPLY LIME X1/4	TON	7.75	.50	3.87
FERT 0-24-24	CWT	7.00	2.50	17.50
TREFLAN	LB	6.19	1.00	6.19
DINITRO	LB	1.83	3.02	5.53
SEED	LB	.15	55.00	8.25
BASAGRAN	LB	13.78	.33	4.55
SPECIAL EQUIPMENT	ACRE	3.63	1.00	3.63
EQUIPMENT	ACRE	3.70	1.00	3.70
TRACTOR	ACRE	6.83	1.00	6.83
INT ON OP CAP	ACRE	3.88	1.00	3.88
HAUL	BU	.03	23.00	.71
TOTAL DIRECT EXPENSE				71.17
RETURNS ABOVE DIRECT EXPENSES				78.33
ED EXPENSES				
SPECIAL EQUIPMENT	ACRE	5.41	1.00	5.41
EQUIPMENT	ACRE	7.10	1.00	7.10
TRACTOR	ACRE	8.26	1.00	8.26
TOTAL FIXED EXPENSE				20.78
TOTAL SPECIFIED EXPENSES				91.95
NET RETURN				57.55

TABLE 28 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	12	.56	.66	.37	.68	.53	.00	.00	2.80
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	3	.73	.86	.41	.74	.69	6.19	.00	9.63
APPLY FERT	4	.24	.29	.08	.13	.23	19.37	.00	20.35
DISK BED	4	.51	.60	.17	.29	.48	.00	.00	2.06
REBED	4	.51	.60	.17	.29	.48	.00	.00	2.06
ROW CONDITION	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	18.22	.00	21.79
CULTIVATE EARLY	5	.61	.72	.15	.29	.58	.00	.00	2.35
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.24	.29	.08	.13	.23	19.05	.00	20.02
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	.78	.00	4.29
CULTIVATE LATE	6	.49	.58	.12	.23	.46	.00	.00	1.88
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	.00	.95	.97
APPLY INS GROUND	9	.00	.00	.29	.37	.18	3.84	.00	4.69
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		9.02	10.60	26.50	44.94	16.01	88.75	54.04	249.87
INTEREST ON OPERATING CAPITAL									5.33
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									255.20

LE 29.ESTIMATED COST AND NET RETURNS PER ACRE
TON, USUAL INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

TM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
NCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
RECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.42	3.26
OPERATOR LABOR	HOUR	2.30	3.68	8.47
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
DIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.25	1.00	3.25
TRACTOR	ACRE	9.02	1.00	9.02
INT ON OP CAP	ACRE	5.33	1.00	5.33
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				199.66
RETURNS ABOVE DIRECT EXPENSES				183.99
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	6.26	1.00	6.26
TRACTOR	ACRE	10.60	1.00	10.60
TOTAL FIXED EXPENSE				55.54
TOTAL SPECIFIED EXPENSES				255.20
NET RETURN				128.45

TABLE 30 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.92	.06	.21	.69	.00	.00	2.61
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	12	.34	.43	.37	.66	.32	.00	.00	2.12
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	3	.44	.55	.52	.96	.41	6.19	.00	9.08
APPLY FERT	4	.24	.31	.08	.13	.23	19.37	.00	20.37
DISK BED	4	.32	.40	.17	.29	.30	.00	.00	1.48
REBED	4	.32	.40	.17	.29	.30	.00	.00	1.48
ROW CONDITION	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.48	.61	.45	1.00	.91	18.22	.00	21.67
CULTIVATE EARLY	5	.51	.65	.21	.40	.48	.00	.00	2.25
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.24	.31	.08	.13	.23	19.05	.00	20.04
CULT + POST EARLY	6	.58	.74	.31	.60	.55	.78	.00	3.57
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.53	8.28	26.83	45.57	13.33	88.75	54.04	243.63
INTEREST ON OPERATING CAPITAL									5.13
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									248.76

LE 31.ESTIMATED COST AND NET RETURNS PER ACRE
TON, USUAL INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	2.69	6.18
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.58	1.00	3.58
TRACTOR	ACRE	6.53	1.00	6.53
INT ON OP CAP	ACRE	5.13	1.00	5.13
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				194.91
RETURNS ABOVE DIRECT EXPENSES				188.74
XED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	6.90	1.00	6.90
TRACTOR	ACRE	8.28	1.00	8.28
TOTAL FIXED EXPENSE				53.85
TOTAL SPECIFIED EXPENSES				248.76
NET RETURN				134.89

TABLE 32 .ESTIMATED COST PER ACRE, COTTON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.90	1.09	.06	.21	.69	.00	.00	2.95
CHISEL PLOW 16 FT	11	66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	12	42	.51	.37	.66	.32	.00	.00	2.28
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	3	.54	.65	.52	.96	.41	6.19	.00	9.28
APPLY FERT	4	.30	.36	.08	.13	.23	19.37	.00	20.48
DISK BED	4	.30	.36	.17	.29	.23	.00	.00	1.35
REBED	4	.30	.36	.17	.29	.23	.00	.00	1.35
ROW CONDITION	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	18.22	.00	20.97
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY FERT	6	.30	.36	.08	.13	.23	19.05	.00	20.15
CULT + POST EARLY	6	.54	.65	.35	.68	.41	.78	.00	3.42
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X2	8	.00	.00	.58	.74	.37	5.18	.00	6.87
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.98	8.32	26.94	45.72	12.56	89.75	54.04	243.21
INTEREST ON OPERATING CAPITAL									5.12
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									248.33

ILE 33.ESTIMATED COST AND NET RETURNS PER ACRE
TON, USUAL INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.29	5.27
SPECIAL LABOR	HOUR	2.30	1.86	4.28
TREFLAN	LB	6.19	1.00	6.19
FERT 6-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	1.25	7.24
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
FERT AMM NITRATE	CWT	6.35	3.00	19.05
MSMA	LB	.84	.93	.78
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	13.35	12.95
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	23.25	1.00	23.25
EQUIPMENT	ACRE	3.69	1.00	3.69
TRACTOR	ACRE	6.88	1.00	6.88
INT ON OP CAP	ACRE	5.12	1.00	5.12
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				194.29
RETURNS ABOVE DIRECT EXPENSES				189.36
ED EXPENSES				
SPECIAL EQUIPMENT	ACRE	38.67	1.00	38.67
EQUIPMENT	ACRE	7.05	1.00	7.05
TRACTOR	ACRE	8.32	1.00	8.32
TOTAL FIXED EXPENSE				54.04
TOTAL SPECIFIED EXPENSES				248.33
NET RETURN				135.32

TABLE 34 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.86	.06	.21	.69	.00	.00	2.56
DEEP CHISEL 7 SHANK	11	1.10	1.30	.41	.68	1.03	.00	.00	4.52
CHISEL PLOW 12 FT	11	.73	.86	.13	.30	.69	.00	.00	2.72
DISK HARROW 14 FT	12	.56	.66	.37	.68	.53	.00	.00	2.80
DISK + INCOR 14 FT	12	.73	.86	.41	.74	.69	6.19	.00	9.63
DISK BED	12	.51	.60	.17	.29	.48	.00	.00	2.06
DISK HARROW 14 FT	3	.56	.66	.37	.68	.53	.00	.00	2.80
APPLY FERT	4	.24	.29	.08	.13	.23	19.37	.00	20.35
DISK BED	5	.51	.60	.17	.29	.48	.00	.00	2.06
REBED	5	.51	.60	.17	.29	.48	.00	.00	2.06
ROW CONDITION	5	.24	.29	.03	.06	.23	.00	.00	.85
PLANT + PRE	5	.59	.70	.36	.80	1.11	18.22	.00	21.79
CULTIVATE EARLY	5	.61	.72	.15	.29	.58	.00	.00	2.35
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.24	.29	.08	.13	.23	19.05	.00	20.02
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	3.06	.00	6.57
CULT + POST EARLY	6	.86	1.01	.29	.55	.81	3.06	.00	6.57
CULTIVATE LATE	6	.49	.56	.12	.23	.46	.00	.00	1.88
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
CULT + POST LATE	7	.69	.81	.23	.44	.64	.68	.00	3.49
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		11.50	13.51	28.53	47.94	19.07	102.47	54.04	277.06
									6.40

35.ESTIMATED COST AND NET RETURNS PER ACRE
N, HIGH INPUT PRACTICES, 4 ROW EQUIPMENT, 38 INCH ROW SPACING,
BELT OF NORTHEAST MISSISSIPPI, 1977.

	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
E				
OTTON LINT	LB	.62000	550.00	341.00
OTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
T EXPENSES				
OMMON LABOR	HOUR	2.30	1.42	3.26
PERATOR LABOR	HOUR	2.30	4.69	10.79
PECIAL LABOR	HOUR	2.30	2.18	5.02
REFLAN	LB	6.19	1.00	6.19
ERT 8-24-24	CWT	7.75	2.50	19.37
OTORAN	LB	5.79	2.05	11.87
EMIK	LB	11.47	.30	3.44
OIL TREATER XXX	LB	1.15	.10	.11
EED	LB	.27	27.50	7.42
IDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
ERT AMM NITRATE	CWT	6.35	3.00	19.05
UTHION	LB	5.02	1.50	7.53
PPLY INS AIR	ACRE	.95	4.00	3.80
ARMEX (WP)	LB	3.25	.42	1.36
OX + METHYL PARA	PT	.97	18.69	18.13
EFOLIANT	LB	1.67	1.43	2.39
PECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
QUIPMENT	ACRE	4.12	1.00	4.12
RACTOR	ACRE	11.50	1.00	11.50
NT ON OP CAP	ACRE	6.48	1.00	6.48
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				222.09
RETURNS ABOVE DIRECT EXPENSES				161.56
D EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	7.78	1.00	7.78
TRACTOR	ACRE	13.51	1.00	13.51
TOTAL FIXED EXPENSE				61.45
TOTAL SPECIFIED EXPENSES				283.54
NET RETURN				100.11

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.73	.92	.06	.21	.69	.00	.00	2.61
DEEP CHISEL 11 SHANK	11	.97	1.23	.60	1.00	.92	.00	.00	4.72
CHISEL PLOW 16 FT	11	.53	.68	.16	.35	.51	.00	.00	2.23
DISK HARROW 21 FT	12	.34	.43	.37	.66	.32	.00	.00	2.12
DISK + INCOR 21 FT	12	.44	.55	.52	.96	.41	6.19	.00	9.08
DISK BED	12	.32	.40	.17	.29	.30	.00	.00	1.48
DISK HARROW 21 FT	3	.34	.43	.37	.66	.32	.00	.00	2.12
APPLY FERT	4	.24	.31	.08	.13	.23	19.37	.00	20.37
DISK BED	5	.32	.40	.17	.29	.30	.00	.00	1.48
REBED	5	.32	.40	.17	.29	.30	.00	.00	1.48
ROW CONDITION	5	.24	.31	.03	.06	.23	.00	.00	.87
PLANT + PRE	5	.48	.61	.45	1.00	.91	18.22	.00	21.67
CULTIVATE EARLY	5	.51	.65	.21	.40	.48	.00	.00	2.25
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.24	.31	.08	.13	.23	19.05	.00	20.04
CULT + POST EARLY	6	.58	.74	.31	.60	.55	3.06	.00	5.84
CULT + POST EARLY	6	.58	.74	.31	.60	.55	3.06	.00	5.84
CULTIVATE LATE	6	.34	.43	.14	.26	.32	.00	.00	1.49
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
CULT + POST LATE	7	.44	.55	.23	.45	.41	.68	.00	2.77
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
TOTAL SPECIFIED COSTS		6.40	10.65	29.07	48.94	16.13	102.47	54.04	269.71
INTEREST ON OPERATING CAPITAL									6.18
									275.89

ABLE 37.ESTIMATED COST AND NET RETURNS PER ACRE
OTTON, HIGH INPUT PRACTICES, 6 ROW EQUIPMENT, 38 INCH ROW SPACING,
LACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.37	3.16
OPERATOR LABOR	HOUR	2.30	3.46	7.95
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	2.05	11.87
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
FERT AMM NITRATE	CWT	6.35	3.00	19.05
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	18.69	18.13
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
EQUIPMENT	ACRE	4.66	1.00	4.66
TRACTOR	ACRE	8.40	1.00	8.40
INT ON OP CAP	ACRE	6.18	1.00	6.18
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				216.30
RETURNS ABOVE DIRECT EXPENSES				167.35
IXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	8.79	1.00	8.79
TRACTOR	ACRE	10.65	1.00	10.65
TOTAL FIXED EXPENSE				59.60
TOTAL SPECIFIED EXPENSES				275.89
NET RETURN				107.76

TABLE 38 .ESTIMATED COST PER ACRE, COTTON, HIGH INPUT PRACTICES, 6 ROW
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
STALK SHREDDER 2 ROW	11	.90	1.09	.06	.21	.69	.00	.00	2.95
DEEP CHISEL 11 SHANK	11	1.20	1.45	.60	1.00	.92	.00	.00	5.17
CHISEL PLOW 16 FT	11	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	12	.42	.51	.37	.66	.32	.00	.00	2.28
DISK + INCOR 21 FT	12	.54	.65	.52	.96	.41	6.19	.00	9.28
DISK BED	12	.30	.36	.17	.29	.23	.00	.00	1.35
DISK HARROW 21 FT	3	.42	.51	.37	.66	.32	.00	.00	2.28
APPLY FERT	4	.30	.36	.08	.13	.23	19.37	.00	20.48
DISK BED	5	.30	.36	.17	.29	.23	.00	.00	1.35
REBED	5	.30	.36	.17	.29	.23	.00	.00	1.35
ROW CONDITION	5	.24	.29	.03	.06	.18	.00	.00	.80
PLANT + PRE	5	.40	.48	.40	.87	.61	18.22	.00	20.97
CULTIVATE EARLY	5	.48	.58	.25	.48	.37	.00	.00	2.16
APPLY INS GROUND	5	.00	.00	.29	.37	.18	.90	.00	1.74
APPLY MSMA GROUND X2	6	.00	.00	.58	.74	.37	3.20	.00	4.89
APPLY FERT	6	.30	.36	.08	.13	.23	19.05	.00	20.15
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.06	.00	5.70
CULT + POST EARLY	6	.54	.65	.35	.68	.41	3.06	.00	5.70
CULTIVATE LATE	6	.30	.36	.16	.30	.23	.00	.00	1.35
APPLY INS GROUND X2	7	.00	.00	.58	.74	.37	2.51	.00	4.20
APPLY INS AIR	7	.00	.00	.00	.00	.02	1.25	.95	2.23
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
CULT + POST LATE	7	.39	.47	.26	.49	.30	.68	.00	2.59
APPLY INS GROUND	8	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY INS AIR	8	.00	.00	.00	.00	.02	1.25	.95	2.23
APPLY INS GROUND	8	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS GROUND X3	8	.00	.00	.87	1.11	.55	7.77	.00	10.30
APPLY INS AIR	8	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	2.59	.00	3.43
APPLY INS AIR	9	.00	.00	.00	.00	.02	2.59	.95	3.56
APPLY INS GROUND	9	.00	.00	.29	.37	.18	1.25	.00	2.10
APPLY DEFOLIATE	9	.00	.00	.32	.41	.20	2.39	.00	3.32
1ST PICK 2 ROW	10	.00	.00	13.62	23.33	3.45	.00	.00	40.40
HAUL	10	.00	.00	.00	.00	.00	.00	4.99	4.99
2ND PICK 2 ROW	10	.00	.00	6.99	11.98	1.77	.00	.00	20.74
HAUL	10	.00	.00	.00	.00	.00	.00	1.25	1.25
GIN	10	.00	.00	.00	.00	.00	.00	44.00	44.00
		8.08	10.29	29.23	49.17	14.86	102.47	54.04	269.47
									6.19

LE 39.ESTIMATED COST AND NET RETURNS PER ACRE
TON, HIGH INPUT PRACTICES, 8 ROW EQUIPMENT, 38 INCH ROW SPACING,
CK BELT OF NORTHEAST MISSISSIPPI, 1977.

M	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
OME				
COTTON LINT	LB	.62000	550.00	341.00
COTTON SEED	LB	.05000	853.00	42.65
TOTAL INCOME				383.65
ECT EXPENSES				
COMMON LABOR	HOUR	2.30	1.31	3.01
OPERATOR LABOR	HOUR	2.30	2.97	6.84
SPECIAL LABOR	HOUR	2.30	2.18	5.02
TREFLAN	LB	6.19	1.00	6.19
FERT 8-24-24	CWT	7.75	2.50	19.37
COTORAN	LB	5.79	2.05	11.87
TEMIK	LB	11.47	.30	3.44
SOIL TREATER XXX	LB	1.15	.10	.11
SEED	LB	.27	27.50	7.42
BIDRIN	LB	4.50	.20	.90
MSMA + SURFACTANT	PT	.80	5.86	4.69
FERT AMM NITRATE	CWT	6.35	3.00	19.05
GUTHION	LB	5.02	1.50	7.53
APPLY INS AIR	ACRE	.95	4.00	3.80
KARMEX (WP)	LB	3.25	.42	1.36
TOX + METHYL PARA	PT	.97	18.69	18.13
DEFOLIANT	LB	1.67	1.43	2.39
SPECIAL EQUIPMENT	ACRE	24.41	1.00	24.41
EQUIPMENT	ACRE	4.81	1.00	4.81
TRACTOR	ACRE	8.92	1.00	8.92
INT ON OP CAP	ACRE	6.19	1.00	6.19
HAUL	LB	.01	550.00	6.24
GIN	LB	.08	550.00	44.00
TOTAL DIRECT EXPENSE				215.69
RETURNS ABOVE DIRECT EXPENSES				167.96
ED EXPENSES				
SPECIAL EQUIPMENT	ACRE	40.15	1.00	40.15
EQUIPMENT	ACRE	9.02	1.00	9.02
TRACTOR	ACRE	10.79	1.00	10.79
TOTAL FIXED EXPENSE				59.96
TOTAL SPECIFIED EXPENSES				275.65
NET RETURN				108.00

TABLE 40 .ESTIMATED COST PER ACRE, WHEAT FOR GRAIN, 115-150 DBHP TRACTOR, BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

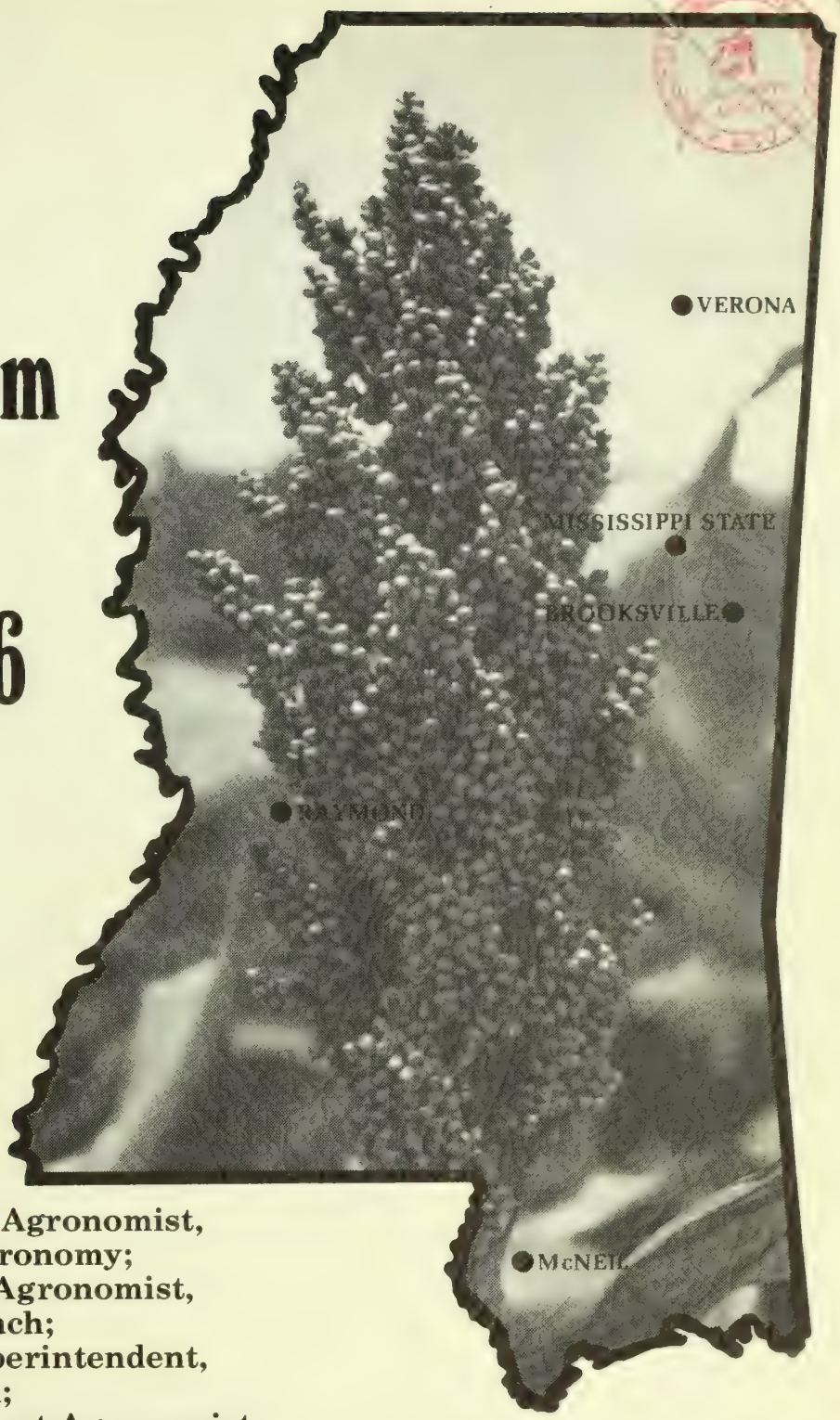
OPERATION DESCRIPTION	MONTH	TRACTOR DIRECT COST	TRACTOR FIXED COST	EQUIPMENT DIRECT COST	EQUIPMENT FIXED COST	LABOR COST	MATERIAL COST	MISC COST	TOTAL COST
		DOLLARS							
APPLY FERT	9	.30	.36	.08	.13	.23	15.50	.00	16.60
CHISEL PLOW 16 FT	9	.66	.80	.16	.35	.51	.00	.00	2.47
DISK HARROW 21 FT	10	.42	.51	.37	.66	.32	.00	.00	2.28
SECTION HARROW	10	.30	.36	.03	.06	.23	.00	.00	.98
GRAIN DRILL 32 FT	10	.30	.36	.66	1.29	.46	8.80	.00	11.86
APP FERT - AIR	3	.00	.00	.00	.00	.07	19.05	2.25	21.37
APP 2,4-D - AIR	4	.00	.00	.00	.00	.02	1.89	3.50	5.41
COMBINE 20 FT	6	.00	.00	3.05	4.67	.53	.00	.00	8.25
HAUL	6	.00	.00	.00	.00	.00	.00	.81	.81
BURN	6	.00	.00	.00	.00	.02	.00	.00	.02
TOTAL SPECIFIED COSTS		1.98	2.39	4.35	7.16	2.39	45.24	6.56	70.07
INTEREST ON OPERATING CAPITAL									2.64
TOTAL SPECIFIED COSTS INCLUDING INTEREST ON OPERATING CAPITAL									72.71

TABLE 41.ESTIMATED COST AND NET RETURNS PER ACRE
WHEAT FOR GRAIN, 115-150 DBHP TRACTOR,
BLACK BELT OF NORTHEAST MISSISSIPPI, 1977.

ITEM	UNIT	PRICE	QUANTITY	AMOUNT
		DOLLARS		DOLLARS
INCOME				
WHEAT	BU	3.25000	30.00	97.50
TOTAL INCOME				97.50
DIRECT EXPENSES				
COMMON LABOR	HOUR	2.30	.15	.34
OPERATOR LABOR	HOUR	2.30	.66	1.52
SPECIAL LABOR	HOUR	2.30	.23	.53
FERT 8-24-24	CWT	7.75	2.00	15.50
SEED	LB	.10	88.00	8.80
FERT AMM NITRATE	CWT	6.35	3.00	19.05
APP FERT - AIR	CWT	2.25	1.00	2.25
2,4-D	LB	1.89	1.00	1.89
APP 2,4-D - AIR	ACRE	3.50	1.00	3.50
SPECIAL EQUIPMENT	ACRE	3.05	1.00	3.05
EQUIPMENT	ACRE	1.30	1.00	1.30
TRACTOR	ACRE	1.98	1.00	1.98
INT ON OP CAP	ACRE	2.64	1.00	2.64
HAUL	BU	.03	30.00	.81
TOTAL DIRECT EXPENSE				63.16
RETURNS ABOVE DIRECT EXPENSES				34.34
FIXED EXPENSES				
SPECIAL EQUIPMENT	ACRE	4.67	1.00	4.67
EQUIPMENT	ACRE	2.49	1.00	2.49
TRACTOR	ACRE	2.39	1.00	2.39
TOTAL FIXED EXPENSE				9.55
TOTAL SPECIFIED EXPENSES				72.71
NET RETURN				24.79

Bulletin 852 February 1977

Mississippi Grain Sorghum Performance Trials in 1976



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By
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Mississippi Grain Sorghum Performance Trials in 1976

Trials are conducted annually in Mississippi to provide farmers, seedsmen, county agents and other interested persons with information on performance of commercially-available grain sorghum hybrids. Results are particularly helpful to grain sorghum producers in selecting hybrids suited to their area.

We tested 38 commercial and experimental hybrids at five locations in Mississippi in 1976 (Table 1). Because a true test of performance cannot be made without control of insects, insecticides were applied as needed (two applications of a recommended insecticide usually are sufficient[1]).

Resistance to diseases is important in selecting a hybrid for areas where diseases are a problem. Also, planting at the recommended time will reduce damage caused by diseases and insects.

Quantity of harvested good-quality grain (or silage) is the best guide to the desirability of sorghum hybrids. Performance data for any one year may be misleading. Therefore, performance of each hybrid tested in 1976 is presented in this report along with three-year averages of performances of hybrids that have been tested for this long.

Table 1. Planting Dates, Fertilizer Formulations and Rates, and Insecticides Applied, Hybrid Grain Sorghum Performance Trials, by Location of Trials, Mississippi, 1976.

Location	Planting date	Fertilizer Formulations and Rates[1]	Insecticides Applied[2]
McNeil[3]	May 5	50-0-0 SD	3-diazinon
Raymond	April 16	65-65-65 PP 100-0-0 SD	None
Brooksville	May 25	40-40-40 PP 60-0-0 SD	7-sevin
Mississippi State	May 23	100-0-0 SD	4-diazinon
Verona	May 21	45-0-60 PP 100-0-0 SD	None

[1]SD = Sidedressed, PP = Preplant
[2]Insecticides Applied as Labeled.
[3]McNeil plots were irrigated twice (3/4" water/irrigation)

Testing Procedures

A randomized complete block experimental design with four replications was used at all locations. Each plot consisted of two rows, 38 or 40 inches wide and 20 feet long. All trials were planted at the rate of seven pounds of seed per acre. Areas of 1/1000 of an acre were hand-harvested from each replication, heads were dried and threshed, and grain yield was adjusted to 14 percent moisture. Trials with average bird damage of more than 25 percent were not harvested. Data reported have not been adjusted for bird damage. Planting dates, fertilizer formulations and rates and insecticides applied are presented in Table 1.

Results

Trials with non-bird resistant hybrids at Brooksville, Mississippi State and Verona were destroyed by birds. Early harvest to prevent bird damage to non-bird-resistant varieties was partly successful at McNeil and Raymond---bird damage at McNeil was negligible and averaged 24 percent at Raymond.

Grain yield of the 24 non-bird-resistant hybrids in the 1976 trials

[1]*See MAFES Bulletins 817 and 836 for methods of control of grain sorghum insects.*

Table 2. Performance of 24 non-bird-resistant hybrids in Mississippi Grain Sorghum Performance Trials, average of two locations (McNeil and Raymond), 1976.

Hybrid	50% Bloom[1]	Plant Height[1]	Bird Damage	Yield		
				McNeil	Raymond	Mean
	(days)	(in.)	(%)	----------(lbs/A)----------		
Wilstar 1425	77	53.5	11	6575	4736	5656
Excel RA 747	76	56.8	25	6314	4549	5432
Growers ML-135	77	50.2	9	5964	4828	5396
Pioneer brand 8311	80	50.2	10	5756	5014	5385
Excel RA 808	79	55.5	15	5935	4645	5290
Wilstar 1225	79	48.2	11	6101	4470	5286
Funk's G522	77	51.0	9	5690	4694	5192
N. K. 284	80	54.8	19	6397	3764	5080
Funk's G701 GBR	79	54.8	20	6449	3706	5078
DeKalb F-67	83	50.0	8	6126	4014	5070
T. T. Two 62y-G	81	48.5	6	6017	4076	5046
Funk's G622 GBR	79	49.2	9	5839	4214	5026
Warner W-832	78	52.5	11	5143	4800	4972
Acco X-4498	78	54.2	20	5936	3576	4756
Acco R 109-A	81	50.2	9	4690	4793	4742
Excel RA 811-A	79	61.8	50	6168	3218	4693
Funk's HW 3862	78	50.0	9	4736	4643	4690
Acco R 1029-A	77	53.0	49	5507	3779	4643
Funk's G722 DR	81	56.5	21	5950	3307	4628
Acco R 1090	83	50.8	11	5374	3775	4574
T-E Y101	77	49.8	11	4733	3951	4342
T. T. Two 72y	80	58.5	84	5654	2639	4146
Warner W-866	73	58.5	69	5405	2801	4103
Wilstar 1330	77	64.0	91	6030	2091	4060
Mean	78.7	53.4	24	5770	4003	4886
L. S. D. (.05)				1725	1213	
C. V.				21.6%	21.9%	

[1]Recorded at Raymond, MS.

Table 3. Performance of 14 bird-resistant hybrids in Mississippi Grain Sorghum Trials, average of five locations (McNeil, Raymond, Brooksville, Mississippi State, and Verona), 1976.

Hybrid	50% Bloom[1]	Plant Height[1]	Lodg.[1]	McNeil	Raymond	Brooks-ville	Miss. State	Verona	Mean
	(days)	(in.)	(%)	----------(lbs/A)----------					
Acco BR-Y93	82	62.0	2	6715	5425	4748	7338	7456	6336
GSA 1334 BR	81	57.5	0	7356	5218	4802	7346	6697	6284
Funks G516 BR	79	59.5	0	6879	5094	4756	7244	6672	6129
T-E EXP 7542	75	57.5	0	7156	5027	4744	7068	6507	6100
Wilst. 1360-BR	83	59.0	0	6539	5131	4943	7356	6397	6073
Pioneer B 815	81	61.0	0	6157	5925	4104	6537	6721	5889
W-744 BR	77	57.5	0	5889	5099	4706	6897	6656	5849
Bird-A-Boo II	77	56.2	0	6350	5161	4236	6960	6062	5754
N. K. X3101 A	73	66.2	0	6702	5374	3619	6074	6775	5709
DeKalb BR-65	82	55.8	0	6551	4421	4482	6946	6120	5704
Funk's BR 79	75	62.8	35	5994	3992	3534	7280	6464	5453
DeKalb BR-64	81	64.5	0	6290	4490	3693	6906	5865	5449
T-E EXP 7551	77	58.2	0	5810	3586	4186	6087	6045	5143
DeKalb BR-54	81	67.0	8	5321	4587	4116	5183	6324	5106
Mean	78.9	60.3	3	6408	4895	4334	6081	6483	5784
L. S. D. (.05)				1425	1098	957	1071	1058	
C. V.				16.0%	16.2%	15.9%	11.4%	11.8%	

[1]Recorded at Raymond, MS.

ranged from 2,091 pounds per acre for Wilstar 1330 in the Raymond trials to 6,575 for Wilstar 1425 in the McNeil trials. Yield of the 24 hybrids averaged 5,770 pounds per acre at McNeil, 4,003 at Raymond, and 4,886 for the two locations (Table 2).

Grain yield of the 14 bird-resistant hybrids in the 1976 trials ranged from 3,534 pounds per acre for Funk's BR 79 in the Brooksville trials to 7,456 for Acco BR-Y93 in the Verona trials. Yield of these 14 hybrids averaged 5,784 pounds per acre for the five test locations (Brooksville, McNeil, Mississippi State, Raymond and Verona), ranging from 4,334 at Brooksville to 6,483 at Verona (Table 3).

Three-year average yields of non-bird-resistant and bird-resistant hybrids are reported in Tables 4 and 5.

Table 4. Yield of seven non-bird-resistant hybrids in Mississippi Grain Sorghum Performance Trials, by location of trials, average for three years, 1974-76.

Hybrid	Yield in lbs/A		
	McNeil	Raymond	Mississippi[1] State
Excel RA 811-A	4942	3592	3090
Funk's G522	4675	4027	2984
Excel RA 808	4659	3976	3202
Acco R 1090	4295	3784	3279
Acco R 109-A	4198	4082	3334
T-E Y101	4113	4051	3358
Acco R 1029-A	4429	3714	3185

[1]Average for 1974 and 1975 only.

Table 5. Yield of six bird-resistant hybrids in Mississippi Grain Sorghum Performance Trials, by location of trials, average for three years, 1974-76.

Hybrid	Yield in lbs/A			
	McNeil	Raymond	Miss. State	Verona
N. K. X3101 A	5178	5532	5666	4051
Pioneer brand B815	5106	5549	5020	4229
Funk's BR 79	5093	4938	5375	3794
Funk's G516 BR	5046	5386	5180	3985
DeKalb BR-54	4500	5058	4580	3949
Acco BR Y93	5154	5667	5412	4239

Hybrids Designated for Entry in the 1976 Mississippi Grain Sorghum Performance Trials, by Sponsers.

Hybrid	Company	Address
Acco R 109-A	Acco Seed Company	Plainview, Texas
Acco R 1090		
Acco R 1029-A		
Acco X-4498		
Acco BR Y93		
DeKalb BR-54	DeKalb AgResearch, Inc.	Lubbock, Texas
DeKalb BR-64		
DeKalb BR-65		
DeKalb F-67		
Excel RA 747	Ring Around Products, Inc.	Plainview Texas
Excel RA 808		
Excel RA 811-A		
Funk's BR 79	Louisiana Seed Co., Inc.	Plainview, Texas
Funk's G522		
Funk's G516 BR		
Funk's G622 GBR		
Funk's G701 GBR		
Funk's G722 DR		
Funk's HW 3862		
Growers ML-135	Growers Seed Assn.	Lubbock, Texas
Growers GSA 1334 BR		
N. K. 284	Northrup, King & Co.	Richardson, Texas
N. K. X3101 A		
Pioneer brand B815	Pioneer Hi-Bred, Inc.	Tipton, Indiana
Pioneer brand 8311		
T-E Bird-A-Boo II	Taylor-Evans Seed Co.	Tulia, Texas
T-E Y101		
T-E EXP 7542		
T-E EXP 7551		
T. T. Two 72y	Texas Triumph Seed Co., Inc.	Ralls, Texas
T. T. Two 62y-G		
Warner W-832	Warner Seed Co., Inc.	Hereford, Texas
Warner W-744 BR		
Warner W-866		
Wilstar 1225	Helena Chemical Co.	West Helena, Arkansas
Wilstar 1330		
Wilstar 1360-BR		
Wilstar 1425		

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Mississippi Cotton Variety Tests in 1976

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Mississippi Cotton Variety Tests in 1976

uation of cotton varieties is inuous process because im- varieties are released and l practices are altered. Con- testing and evaluation of es and experimental strains ential in providing a guide mers interested in the best d variety that possesses the t possible yield potential uality for their respective production. A major deter- of yield and quality of is the variety planted. ore, the most promising es and strains are tested ear in several Mississippi ments and results are d as a guide to producers in ng varieties most ap- te for their areas.

Cotton varieties were tested in four Delta environments and three other Mississippi environments in 1976. Seventeen varieties were evaluated at Stoneville on light-textured soils, 17 at Tunica on light-textured soils, 15 of the 17 at Sumner on a light-textured soil and at Stoneville on a mixed soil type and 12 of the 17 on a light-textured soil at Mississippi State University. Trials planted at Holly Springs and Verona were abandoned because of poor stands.

Three entries, Deltapine 6225-53, Vail 7 and Coker 1104, were evaluated for the first time. Varieties grown at Stoneville and Tunica were included in a Cooperative Regional Variety Testing Program.

Each entry was randomized and replicated six times. Yield data were based on weight of cotton harvested from two-row plots. Determinations of lint percentage, boll size, seed index and fiber property were made from hand-picked samples. Fiber property data were determined in the U. S. Cotton Fiber Laboratory of the Agricultural Research Service, USDA, Knoxville, Tennessee and the Cotton Fiber Laboratory, MAFES Delta Branch, Stoneville, Mississippi.

Stands in all test environments were adequate except at Holly Springs and Verona. A summer drought (July 4 to September 3) apparently reduced yields in most environments.

Results

1976 test on a Bosket very ndy loam soil at Stoneville anted April 16, almost a earlier than in 1975 but lint were about 200 pounds per ver in 1976. Lint yields also wer than normal, ranging 13 to 716 pounds per acre 1). This test was harvested October 5 and October 28) aturity at first harvest l little by variety, ranging 3 to 91 percent.

1976 test at Tunica was April 20 on a sandy loam lint yields ranged from 268 pounds per acre (Table 2). st was harvested once on 21

highest yields in the 1976 the Delta were obtained in t planted April 21 on a Dundee silt loam soil at Sumner. Lint yields ranged from 740 to 899 pounds per acre (Table 3). Early maturity of all varieties resulted from the summer drought and this test was harvested once on October 20.

The 1976 test on a mixed soil type at Stoneville was planted on April 20---soil ranged from a silty loam on one side of the test area to clay on the other. This test was harvested twice (October 11 and October 28) and maturity at first harvested differed little by variety, ranging from 85 to 92 percent. Yields ranged from 413 to 631 pounds per acre (Table 4).

Average lint yields of the 15 varieties grown in the four Delta environments in 1976 ranged from 517 to 687 pounds per acre (Table 5). The 1976 yields in most Delta environments were below normal, fiber of most varieties was shorter than usual and boll size of all varieties was smaller than normal. The lower yields, shorter fiber and smaller bolls were due partially to inadequate moisture from July 4 to September 3.

Average lint yields of ten varieties grown in six Delta environments in 1975 and 1976 ranged from 577 to 724 pounds per acre (Table 6). These below-normal yields reflect poor production in both years.

Average lint yields of six cotton varieties tested in eleven Delta environments in the last three years ranged from 715 to 829 pounds (Table 7).

Several new varieties developed

ınd released in the past few years ıave replaced some older varietal ypes. Therefore, only four cotton arieties have been tested for five onsecutive years. The 1972-1976 ıverage lint yield of these varieties anged from 849 to 891 pounds per ıcre (Table 8). Maturity at first harvest and boll size differed little by variety but differences in fiber length were significant.

The 1976 test at Mississippi State University was planted on a Marietta fine sandy loam soil on April 27. Lint yields ranged from 993 to 1158 pounds per acre (Table 9).

Average lint yields of the ten cotton varieties grown at Mississippi State in 1975 and 1976 ranged from 855 to 954 pounds per acre (Table 10).

1. Results of the 1976 Cotton Variety Test on Bosket very fine sandy loam soil at Stoneville, ssippi.

	LINT PER ACRE						FIBER PROPERTIES				
			Percent			Boll	Length				
	Total	First pick	first pick	Lint percent	Seed index	size grams	2.5%	50%	Strength g/tex	Elonga- tion	Micro- naire
06-020-24	716	652	91	38.1	10.7	5.46	1.12	.54	22.02	7.3	4.3
2134-056	690	628	91	37.3	9.6	4.75	1.09	.52	20.54	7.1	4.0
pine 6225-53	658	584	89	40.0	9.1	4.90	1.09	.52	19.95	6.8	4.2
	637	574	90	39.4	9.1	4.66	1.06	.49	16.68	5.4	4.4
ville 213	633	561	89	37.9	9.3	4.81	1.10	.52	19.72	7.3	4.4
pine 16	629	525	83	36.8	10.9	5.89	1.13	.53	19.52	8.5	4.3
pine 55	628	563	90	39.5	9.0	4.80	1.10	.51	19.43	6.4	3.9
ville 256	628	566	90	38.3	9.5	4.90	1.09	.52	18.22	5.6	4.3
ville 731N	610	553	91	38.6	9.9	4.75	1.09	.52	19.01	5.0	4.4
pine 61	590	496	84	37.2	9.9	5.20	1.10	.54	20.87	8.2	4.4
304	581	516	89	37.1	10.4	5.44	1.17	.54	20.60	6.1	4.1
310	567	507	89	37.1	10.7	5.00	1.15	.54	21.67	7.1	4.0
t 4	543	492	91	38.3	9.4	4.78	1.10	.52	18.21	5.5	4.2
1104	527	464	88	36.7	10.7	5.50	1.16	.56	20.59	6.0	4.0
1517-70	520	442	85	35.5	11.7	5.47	1.11	.54	24.97	5.6	4.2
t 277	517	465	90	36.7	11.3	5.76	1.16	.56	21.61	9.6	3.8
aster 909	413	348	84	36.3	12.3	5.74	0.98	.50	21.43	7.1	4.3
V.	8.3										
SD .05	62										

ed: April 16, 1976
ested: October 5 and October 28, 1976

e 2. Results of the 1976 Cotton Variety Test on a sandy loam soil at Tunica, Mississippi.

	LINT PER ACRE	Lint	Seed	Boll size	FIBER PROPERTIES				
					Length		Strength	Elonga-	Micro-
	Total	percent	index	grams	2.5%	50%	g/tex	tion	naire
apine 6225-53	580	41.4	9.2	4.57	1.06	.52	18.87	6.8	4.6
06-020-24	574	39.0	10.5	5.19	1.11	.53	19.34	7.6	4.5
2134-056	532	39.0	10.3	4.62	1.07	.52	19.26	7.1	4.3
7	528	39.0	10.2	5.23	1.11	.53	18.15	5.5	4.4
apine 55	519	40.9	9.1	5.05	1.07	.50	18.25	7.1	4.3
apine 61	515	38.8	9.5	5.10	1.12	.53	20.26	9.0	4.4
eville 213	513	39.0	9.8	4.94	1.07	.52	19.97	7.4	4.6
r 310	507	39.8	10.8	5.40	1.16	.54	20.38	6.4	4.3
eville 731N	503	40.5	9.1	4.56	1.07	.50	17.54	5.5	4.5
r 304	502	39.7	10.1	4.77	1.15	.54	20.19	6.7	4.2
apine 16	478	38.6	10.3	5.15	1.14	.54	20.05	8.8	4.2
eville 256	423	38.7	9.9	4.86	1.09	.51	17.92	6.6	4.5
ot 277	416	38.4	11.5	5.44	1.14	.55	20.54	8.9	4.0
ot 4	407	37.9	10.0	5.05	1.07	.50	17.61	5.7	4.5
r 1104	387	38.2	11.3	5.50	1.10	.53	20.04	6.4	4.5
a 1517-70	366	36.6	13.0	5.76	1.14	.56	23.90	5.6	4.5
master 909	268	36.7	13.8	5.64	1.00	.51	21.87	6.7	5.1
C.V.	16.4								
LSD .05	93								

nted: April 20, 1976
rvested: October 21, 1976

le 3. Results of the 1976 Cotton Variety Test on Dundee silty loam soil at Sumner, Mississippi.

	LINT PER ACRE	Lint	Seed	Boll size	FIBER PROPERTIES				
					Length		Strength	Elonga-	Micro-
	Total	percent	index	grams	2.5%	50%	g/tex	tion	naire
eville 731N	899	41.0	9.8	4.50	1.08	.52	16.85	7.2	4.6
06-020-24	875	40.2	9.4	5.11	1.11	.53	19.05	8.6	4.5
2134-056	873	39.9	9.6	4.55	1.10	.54	18.66	7.8	4.6
apine 55	856	41.7	8.9	4.77	1.07	.51	18.02	7.7	4.3
apine 6225-53	850	42.0	9.1	4.62	1.06	.52	17.94	7.8	4.7
apine 61	848	39.9	9.5	5.17	1.08	.53	18.70	9.0	4.6
eville 256	846	39.8	10.2	4.94	1.09	.52	17.60	6.6	4.7
er 310	845	40.2	10.1	4.94	1.14	.54	18.25	7.3	4.4
er 1104	832	39.7	10.7	5.04	1.07	.53	19.54	6.7	4.6
eville 213	819	39.8	9.8	4.75	1.06	.52	16.91	8.1	4.9
er 304	802	39.7	9.6	4.80	1.14	.55	19.42	7.3	4.3
7	798	40.2	10.1	5.01	1.08	.51	17.01	6.7	4.7
ot 277	785	39.0	11.4	6.01	1.12	.55	18.52	9.1	4.2
ot 4	765	39.7	10.7	4.96	1.08	.54	17.12	6.6	5.0
apine 16	740	39.6	9.7	5.41	1.08	.52	19.52	9.2	4.5
C.V.	8.2								
LSD .05	78								

nted: April 21, 1976
rvested: October 20, 1976

le 4. Results of the 1976 Cotton Variety Test on a mixed soil type at Stoneville, Mississippi.

	LINT PER ACRE						FIBER PROPERTIES				
			Percent			Boll					
		First	first	Lint	Seed	size	Length		Strength	Elonga-	Micro-
	Total	pick	pick	percent	index	grams	2.5%	50%	g/tex	tion	naire
7	631	567	90	39.0	9.5	4.54	1.11	.52	17.47	5.6	4.9
2134-056	619	565	91	37.6	9.8	4.21	1.12	.54	19.91	7.2	4.5
eville 256	589	521	88	38.8	10.1	4.44	1.13	.53	18.81	6.4	4.4
eville 731N	587	529	90	39.3	9.7	4.23	1.10	.53	18.56	5.8	4.5
apine 6225-53	586	538	92	41.6	9.1	4.48	1.08	.52	20.63	6.8	4.5
06-020-24	583	520	89	37.5	11.5	4.96	1.16	.55	21.16	8.7	4.4
apine 61	574	488	85	38.9	9.4	4.77	1.10	.53	20.60	7.9	4.7
ot 4	564	516	91	38.4	9.7	4.76	1.11	.54	18.56	6.2	4.6
apine 55	556	500	90	40.3	8.4	4.37	1.11	.52	19.05	7.7	4.2
r 310	555	494	89	36.0	10.2	4.78	1.19	.55	21.06	7.2	4.1
apine 16	547	472	86	37.7	9.9	5.02	1.14	.55	19.91	8.6	4.4
eville 213	545	477	87	39.1	9.4	4.63	1.09	.53	19.64	6.6	4.8
r 304	485	443	91	37.0	10.3	4.47	1.17	.54	21.74	6.5	4.2
ot 277	433	394	91	37.1	11.7	5.18	1.14	.55	21.50	8.8	4.0
r 1104	413	370	90	36.1	11.0	4.86	1.16	.55	21.56	6.5	4.1
C.V.	14.1										
LSD .05	89										

ted: April 20, 1976
vested: October 11 and October 28, 1976

le 5. Average Performance of 15 cotton varieties grown in four Delta environments in 1976.[1]

	LINT PER ACRE					FIBER PROPERTIES				
		Percent			Boll					
		first	Lint	Seed	size	Length		Strength	Elonga-	Micro-
	Total	pick[2]	percent	index	grams	2.5%	50%	g/tex	tion	naire
06-020-24	687	90	38.7	10.5	5.18	1.12	.54	20.39	8.0	4.4
2134-056	678	91	38.4	9.8	4.53	1.09	.53	19.59	7.3	4.3
pine 6225-53	668	90	41.2	9.1	4.64	1.07	.52	19.35	7.0	4.5
eville 731N	650	90	39.8	9.6	4.60	1.08	.52	17.99	5.9	4.5
7	648	90	39.4	9.7	4.86	1.09	.51	17.33	5.8	4.6
pine 55	640	90	40.6	8.8	4.75	1.09	.51	18.69	7.2	4.2
pine 61	632	84	38.7	9.6	5.06	1.10	.53	20.11	8.5	4.5
eville 213	627	88	38.9	9.6	4.78	1.08	.52	19.06	7.3	4.7
eville 256	621	89	38.9	9.9	4.78	1.10	.52	18.14	6.3	4.5
r 310	618	89	38.2	10.4	5.03	1.16	.54	20.34	7.0	4.2
pine 16	598	85	38.2	10.2	5.36	1.12	.53	19.75	8.8	4.3
r 304	592	90	38.4	10.1	4.87	1.16	.54	20.49	6.6	4.2
ot 4	570	91	38.6	9.9	4.89	1.09	.52	17.87	6.0	4.6
r 1104	540	89	37.6	10.9	5.22	1.12	.54	20.43	6.4	4.3
t 277	517	90	37.8	11.5	5.60	1.14	.55	20.54	9.1	4.0

ur environments---Stoneville 2, Sumner 1, Tunica 1
rcent first pick from two environments

able 6. Performance of ten cotton varieties grown in six Delta environments, 1975-76 average.[1]

	LINT PER ACRE					FIBER PROPERTIES				
		Percent			Boll	Length				
	Total	first pick[2]	Lint percent	Seed index	size grams	2.5%	50%	Strength g/tex	Elongation	Micronaire
ES 06-020-24	724	85	39.1	11.0	5.48	1.15	.55	20.25	8.1	4.5
oneville 731N	691	85	39.9	10.3	4.89	1.11	.53	17.82	6.0	4.6
ES 2134-056	687	86	38.4	10.3	4.75	1.12	.55	19.55	7.3	4.4
eltapine 55	681	83	40.8	9.4	5.04	1.12	.53	18.75	7.2	4.2
eltapine 16	629	79	38.5	10.7	5.58	1.14	.55	19.54	8.8	4.4
oneville 256	620	80	38.7	10.5	5.06	1.12	.53	18.26	6.3	4.5
oneville 213	619	81	38.8	10.3	5.05	1.10	.53	18.97	7.6	4.7
eltapine 61	606	77	38.9	10.2	5.31	1.13	.55	19.80	8.6	4.6
oker 310	586	83	38.8	10.9	5.29	1.18	.56	20.37	7.0	4.3
oker 304	577	84	39.3	10.5	5.08	1.18	.55	20.22	6.7	4.3

[1]Six environments---Stoneville 3, Tunica 2, Sumner 1
[2]Percent first pick from four environments

able 7. Performance of six cotton varieties grown in eleven Delta environments, 1974-76 verage.[1]

	LINT PER ACRE					FIBER PROPERTIES				
		Percent			Boll	Length				
	Total	first pick[2]	Lint percent	Seed index	size grams	2.5%	50%	Strength g/tex	Elongation	Micronaire
ES 06-020-24	829	86	39.4	11.2	5.72	1.16	.56	20.29	8.0	4.6
eltapine 55	755	82	40.9	9.7	5.23	1.13	.54	18.58	7.3	4.4
toneville 213	751	82	39.1	10.6	5.36	1.13	.54	18.67	7.3	4.8
toneville 256	746	82	39.2	10.6	5.30	1.14	.54	18.17	6.3	4.6
eltapine 16	723	78	38.7	10.8	5.76	1.16	.56	19.36	8.9	4.6
oker 310	715	82	39.3	10.9	5.46	1.20	.57	19.95	7.0	4.4

[1]Eleven environments---Stoneville 5, Tunica 3, Sumner 2, Yazoo City 1
[2]Percent first pick from seven environments

able 8. Performance of four cotton varieties grown in 21 Delta environments, 1972-76 average.[1]

	LINT PER ACRE					FIBER PROPERTIES				
		Percent			Boll	Length				
	Total	first pick[2]	Lint percent	Seed index	size grams	2.5%	50%	Strength g/tex	Elongation	Micronaire
toneville 213	891	85	38.8	10.9	5.50	1.13	.54	18.86	7.1	4.8
eltapine 55	887	85	40.8	10.0	5.32	1.14	.54	18.87	7.2	4.5
eltapine 16	859	82	38.7	11.1	5.84	1.16	.56	19.59	8.7	4.7
oker 310	849	85	39.5	11.2	5.53	1.20	.57	19.97	6.8	4.6

[1]Twenty-one environments---Stoneville 9, Tunica 5, Sumner 4, Yazoo City 3
[2]Percent first pick from 13 environments

9. Results of the 1976 Cotton Variety Test on Marietta fine sandy loam soil at Mississippi Mississippi.

	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elonga-	Micro-
	Total	percent	grams	2.5%	50%	g/tex	tion	naire
ine 61	1158	40.2	5.74	1.17	.56	18.78	10.5	4.7
304	1157	41.5	5.41	1.20	.56	20.16	8.0	4.3
ine 16	1151	39.7	5.78	1.17	.54	19.31	10.9	4.1
310	1100	40.7	5.06	1.20	.56	20.55	8.6	4.1
134-056	1078	39.8	5.07	1.15	.54	18.87	8.7	4.4
ille 213	1074	40.0	5.40	1.12	.53	18.40	9.5	4.7
1104	1047	40.0	5.81	1.16	.56	20.02	8.0	4.2
6-020-24	1029	39.9	5.62	1.18	.55	19.30	9.4	4.4
ille 731N	1020	40.9	4.91	1.13	.52	18.59	7.4	4.2
ine 55	1000	40.7	4.81	1.13	.51	19.26	9.6	3.9
ille 256	993	39.4	5.33	1.14	.53	18.50	7.7	4.2
277	993	38.8	6.03	1.21	.58	20.16	10.3	3.9
V.	6.8							
SD .05	88							

ed: April 27, 1976
ested: November 17, 1976

10. Performance of ten cotton varieties at Mississippi State University, 1975-76 average.[1]

	LINT PER ACRE	Lint	Boll size	FIBER PROPERTIES				
				Length		Strength	Elonga-	Micro-
	Total	percent	grams	2.5%	50%	g/tex	tion	naire
304	954	41.1	5.39	1.18	.54	19.94	8.0	4.4
ine 16	940	40.0	5.70	1.17	.54	19.15	10.7	4.2
2134-056	931	40.2	5.05	1.15	.53	19.33	8.8	4.3
277	929	39.5	5.96	1.18	.57	20.23	10.0	4.0
ville 213	924	39.1	5.67	1.13	.54	19.26	9.3	4.4
310	905	41.4	5.22	1.20	.57	20.46	8.7	4.3
06-020-24	900	40.6	5.58	1.17	.56	19.96	9.8	4.6
ine 55	897	41.4	5.14	1.14	.53	19.60	9.5	4.3
731N	875	40.5	5.20	1.14	.53	18.90	8.5	4.4
ville 256	855	40.3	5.46	1.14	.54	18.75	8.2	4.5

o environments---Leeper fine sandy loam soil in 1975, Marietta fine sandy loam soil in 1976.

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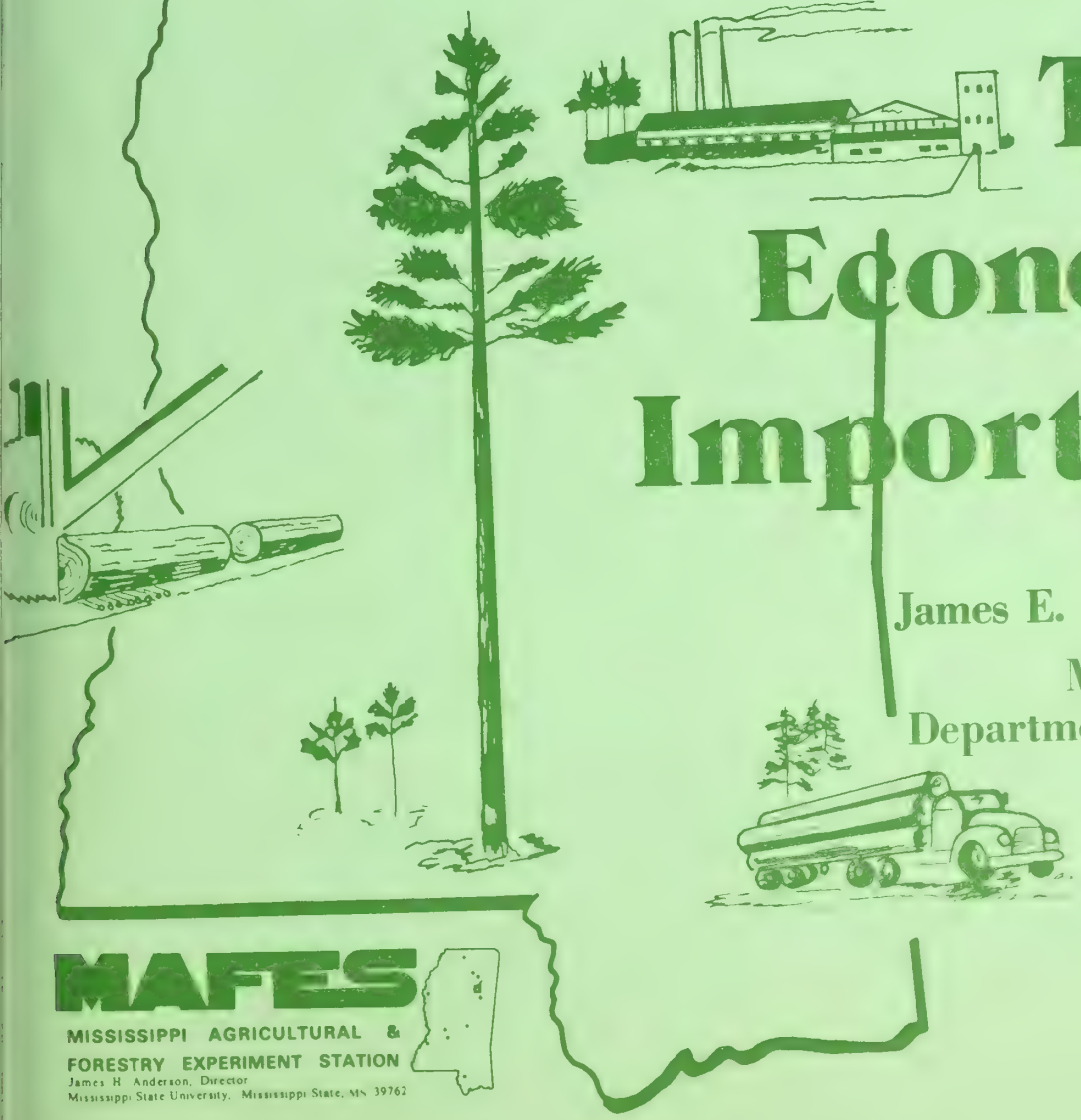
May 1977

Mississippi's Timber Resources and Their Economic Importance



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Preface

Mississippi is blessed with an abundance of natural resources---oil, gas, coastal waters, navigable waterways, rich delta farmland, and nearly 17 million acres of forest land. Timber production and processing was a major source of income even before the turn of the 20th century.

There is constant need for documenting the importance of timber production and processing to Mississippi's economy. This report, prepared to show this importance, uses three widely accepted measures of economic activity: employment, payrolls, and value added. Each of these is estimated for the growing, harvesting, marketing, processing, utilization and construction stages.

Analysis is based on 1973 data unless other dates are indicated. This Bulletin updates results of an earlier study published in 1971 under the title "Forestry: Its Economic Importance to Mississippi" (Moak, 1971). Details of the computational procedure may be found in the Appendix.

Estimates shown in this report are not of equal reliability. Estimates of value added in manufacturing in 1973 were projected from data reported in the 1972 Census of Manufacturers. Employment, payrolls and value added in transportation, marketing and construction were derived by less precise methods. Even so, it is believed that estimates presented in this report can be useful if interpreted with reference to how they were derived.

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Mississippi's Timber Resources and Their Economic Importance

Summary & Highlights

Growing, processing, and using timber are the major forest-related activities that make forestry vitally important to the Mississippi economy.

Additional benefits derived from Mississippi forests are---forest related recreation, wildlife, aesthetics and the forests' contribution to pure water and clean air. Measuring these benefits in monetary terms is not possible, but they obviously contribute importantly to the quality of life that Mississippians enjoy.

55 percent of total land area in Mississippi is in commercial forests.

73 percent of commercial forest land is in nonindustrial forests.

In 1972:

Total growing stock	=	14.2 billion cubic feet
Growth	=	775.5 million cubic feet
Removals	=	700.2 million cubic feet
Net Increase in Inventory	=	75.3 million cubic feet

In 1973:

Beginning growing stock inventory, 14.3 billion cubic feet.

Harvested timber was valued at 118 million dollars in the woods and sold for 220 million dollars at the first delivery point.

Wood-based manufacturing is among the top industrial employers in the state.

36 percent of all manufacturing plants are wood-based.

18 percent of all manufacturing employment and payrolls is in wood-based plants.

22 percent of all value added in manufacturing is in wood-based plants.

74,100 full time jobs can be attributed to timber-based economic activities.

$469.7 million in annual payrolls can be attributed to timber based economic activities.

$1.034 billion of value added in Mississippi can be attributed to timber-based economic activities.

Forest Land

Forestry has been the dominant use for land in Mississippi from the arrival of the white man, when practically all of Mississippi was covered with trees, until today, when 55 percent of the land in the state is classified as commercial forest land.

Land use has shifted between forestry and agriculture since the Civil War. Acreage of land in forests increased from 1935 to 1957 and decreased from 1957 to 1973 (Table 1). The net loss in forest acreage from 1967 to 1973 was due primarily to clearing of 190,000 acres for annual agricultural crops in the Delta. However, there is still more land in forests today than in 1935.

Current land use proportions are shown in Figure 1.

Table 1. Acreage of commercial forest land in Mississippi, selected years, with comparisons.

REGION	Year 1935	1948	1957	1967	1973
	----------Thousand Acres----------				
Delta	2,227	2,043	1,917	1,494	1,307
North	3,127	3,723	4,204	4,195	4,142
Central	5,900	6,020	3,792	3,960	4,447
Southwest			2,747	2,755	2,749
South	4,889	4,746	4,533	4,489	4,056
TOTALS	16,143	16,533	17,194	16,893	16,701
PERCENT OF TOTAL LAND	52	54	57	56	55

Sources: Forest Survey release #59, Miss. Forests 1958; Mississippi Forest Resources, 1968; For. Ser. Bull SO-44, 1973; all published by So. For. Exp. Sta., New Orleans, LA.

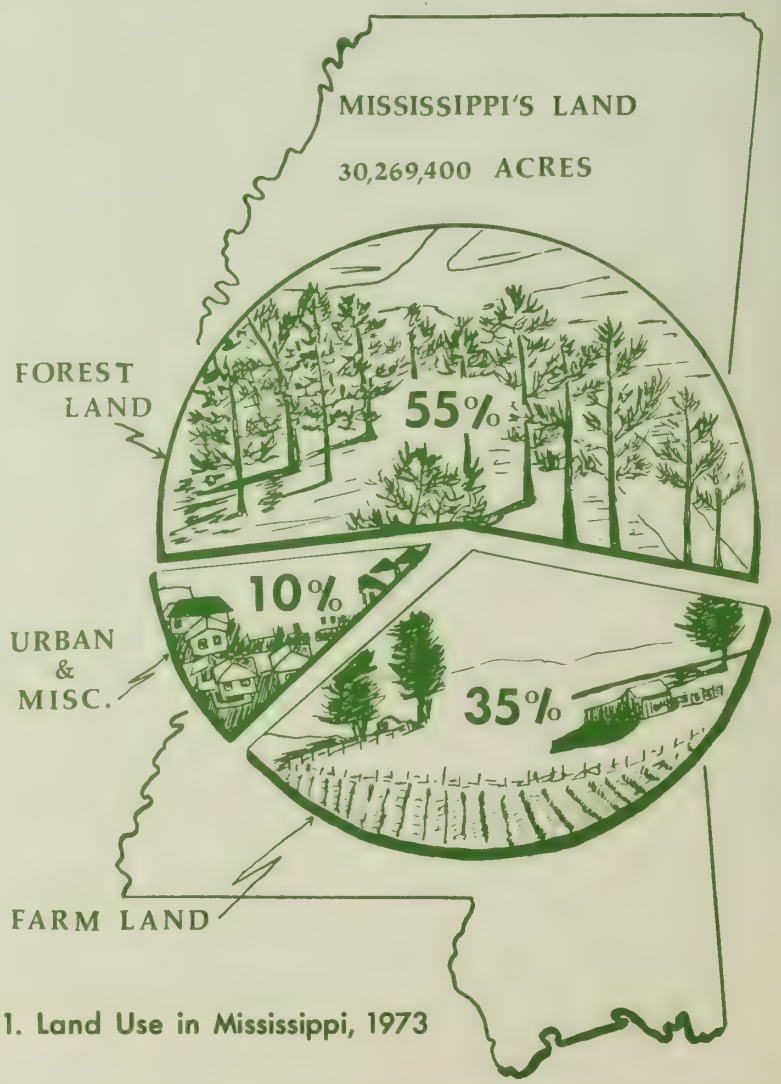

Figure 1. Land Use in Mississippi, 1973

Ownership

Ownership of the 16.7 million acres of forest land in Mississippi is predominantly by individuals---almost three-fourths of the total or over 12 million acres. More than seven million acres are owned by businessmen, factory workers, retirees, doctors, lawyers, housewives and other non-farmers. This group is generally referred to as *other private* to distinguish them from farmers, who own some 28 percent or 5 million acres. (Table 2).

Only 11 percent of the forest land is in public ownership (less than 2 million acres) and slightly more than one million acres of this are in National Forests. Industrial forest ownership is estimated at 16 percent. (Figure 2.)

Table 2. Ownership of commercial forest land, by ownership classes, Mississippi, 1957 and 1972.

OWNERSHIP CLASS	AREA	
	1957	1972
	----Thousand Acres----	
PUBLIC:		
National Forest	1,114.9	1,118.8
Other Federal	150.3	180.7
State	54.5	93.3
County and municipal	397.2	377.4
TOTAL PUBLIC	1,716.9	1,770.2
PRIVATE:		
Forest Industry	2,514.0	2,625.7[1]
Farmer	7,410.5	4,841.1[2]
Other Private	5,552.2	7,463.2
TOTAL PRIVATE	15,476.7	14,930.0
All Ownerships	17,193.6	16,700.2

[1] *Does not include more than 300,000 acres leased from nonindustrial private owners.*

[2] *Source: Census of Agriculture, 1969.*

Other data from USDA Forest Service, SO-17, and SO-44, So. For. Exp. Sta., New Orleans, LA, 1969 and 1973.

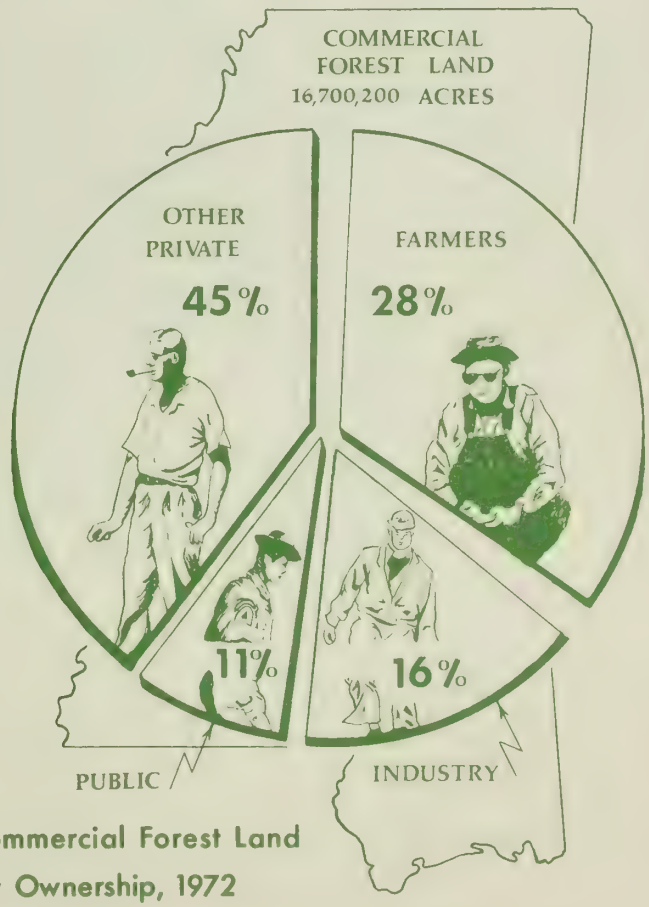

Figure 2. Commercial Forest Land by Ownership, 1972

Timber Inventories

Standing timber inventories have fluctuated since initial cuts were made in virgin stands. Volume was very low in the early 1930's but had increased to 7.7 billion cubic feet in 1948. However, heavy cutting reduced it to 7.6 billion cubic feet in 1957. A combination of reduced cut and better management resulted in a build-up to 13 billion cubic feet in 1967. Harvest increased during the next six years in response to rapidly expanding industrial capacity and the inventory stood at 14.2 billion cubic feet in 1973 (Table 3). The 1973 inventory cannot be ascribed entirely to tree growth because of changes in utilization standards used in the inventory process.

The change in inventory is illustrated in Figures 3 and 4.

Table 3. Inventory of timber growing stock, Mississippi, selected years.

REGION	1948		1957		1967		1973	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	----------Million Cubic Feet----------							
Delta	127.5	910.0	62.6	798.1	69.3	1,198.5	79.0	1,290.3
North	370.4	818.7	412.7	1,017.4	878.0	1,655.5	1,159.0	1,874.5
Central	1,718.4	2,065.7	990.1	898.9	2,028.0	1,520.2	2,187.5	1,655.2
Southwest			701.6	769.9	1,391.8	1,082.5	1,641.4	1,187.6
South	1,114.6	567.0	1,146.3	791.4	2,187.7	1,073.1	2,066.3	1,034.5
TOTALS	3,330.9	4,361.4	3,313.3	4,275.7	6,554.8	6,479.8	7,133.2	7,041.1

Sources: Mississippi Forest Resources and Industries, 1951; Mississippi Forests, 1958; Forest Resources o Mississippi, 1969; Midcycle Evaluation of Mississippi Timber Resources, 1973; All published by USDA, Forest Service SO. For. Exp. Sta. New Orleans, LA.

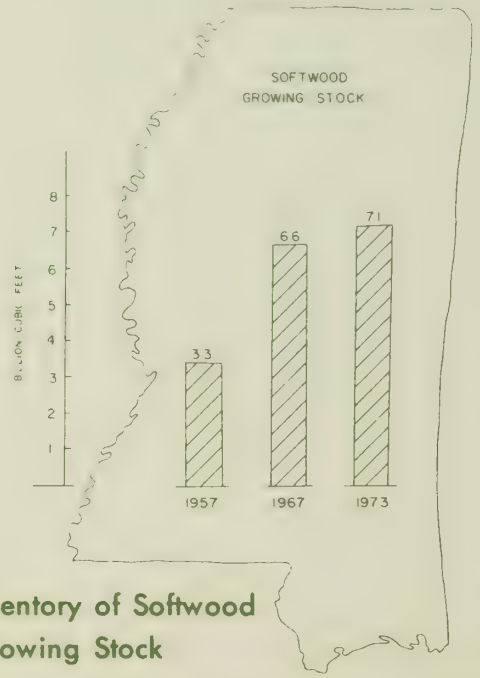

Figure 3. Inventory of Softwood Growing Stock

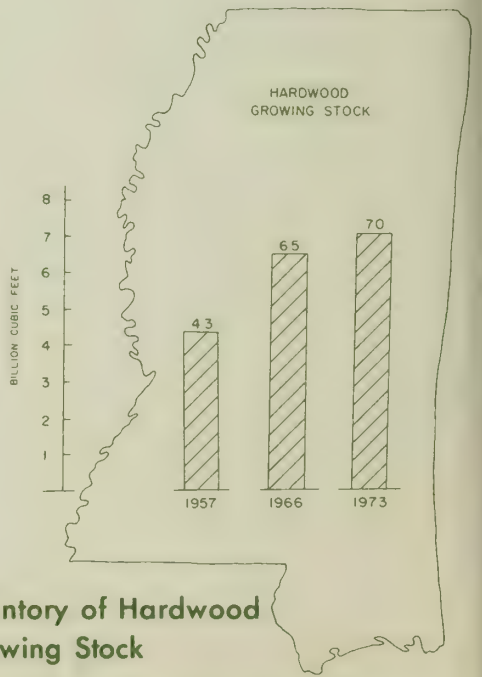

Figure 4. Inventory of Hardwood Growing Stock

Timber Growth and Removal

Growth and Removal patterns have been different for softwoods and hardwoods (Table 4). Softwood removals were 59 percent of growth in 1957, declined to only 48 percent in 1966, but jumped to 94 percent in 1972 as a result of the rapid increase in softwood used by industry from 1966 to 1972. Public agencies and the forest industry became concerned about this situation and joined in an effort that led to passage of the Forest Resource Development Act in 1974. This Act doubled the timber "severence" tax and the increase in revenue now goes to implement the Forest Resource Development program. The Act provides cost-share funds to timberland owners for performing specified forestry practices (Miss. Legislature, 1974).

Hardwood removals were 10 million cubic feet above growth in 1957, dropped to 63 million cubic feet below growth in 1966, and were 50 million cubic feet below growth in 1972.

The present growth-removal balance is cause for real concern because current stocking is only slightly above one-half that considered desirable for best production in natural stands.

Growth-Removal comparisons are illustrated in Figures 5 and 6.

Table 4. Growth of and removals from growing stock, Mississippi, selected years.

DATE	SOFTWOOD		HARDWOOD	
	Growth	Removals	Growth	Removals
	----------Million Cubic Feet----------			
1956	333.4	198.4	269.0	279.0
1966	523.8	251.2	349.7	287.3
1972	453.9	428.1	321.7	272.1

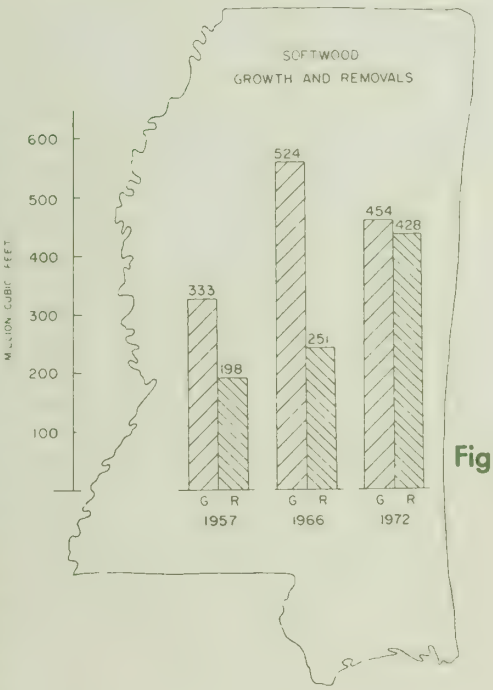

Figure 5. Annual Growth (G) and Removals (R) of Softwood

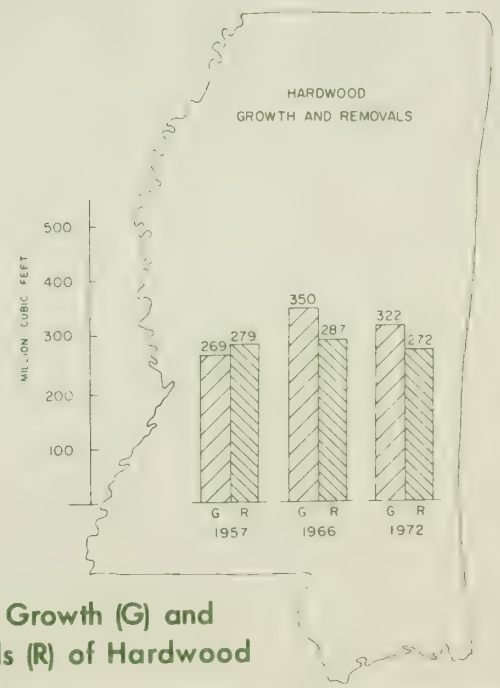

Figure 6. Annual Growth (G) and Removals (R) of Hardwood

Employment

Table 5. Estimated employment in timber-based economic activities, Mississippi, selected years.

Item	1954	1958	1968	1973
	----------Number----------			
Forest Management	2,200	2,500	1,997	4,924
Harvesting	26,450	15,550	10,138	12,311
Manufacturing	32,450	31,150	38,095	39,225
Construction, Transportation and Marketing	10,350	12,500	14,017	17,635
STATE TOTALS	71,450	61,700	64,227	74,095

Note: 1954 and 1958 data from: Hair, Dwight. 1963. The economic importance of timber in the U.S., U.S.D.A. Misc. Pub. No. 941. 1968 and 1973 data computed by the author from Mississippi Employment Security Commission data and by using employment ratios from Hair (1963). See Appendix for details.

Activities associated with growing, harvesting, processing, and marketing timber products always have provided employment for large numbers of Mississippians. More than two-thirds of the workers employed by industry in 1925 were in timber industries. Total employment attributed to timber was 68,000 in 1946, increased to over 71,000 in 1954, fell to some 62,000 in 1958, climbed to over 64,000 in 1968, and was over 74,000 in 1973 (Table 5). At that time 18 percent of all manufacturing employment in Mississippi was in wood-based plants.

Figure 7 shows percentages for each sector.

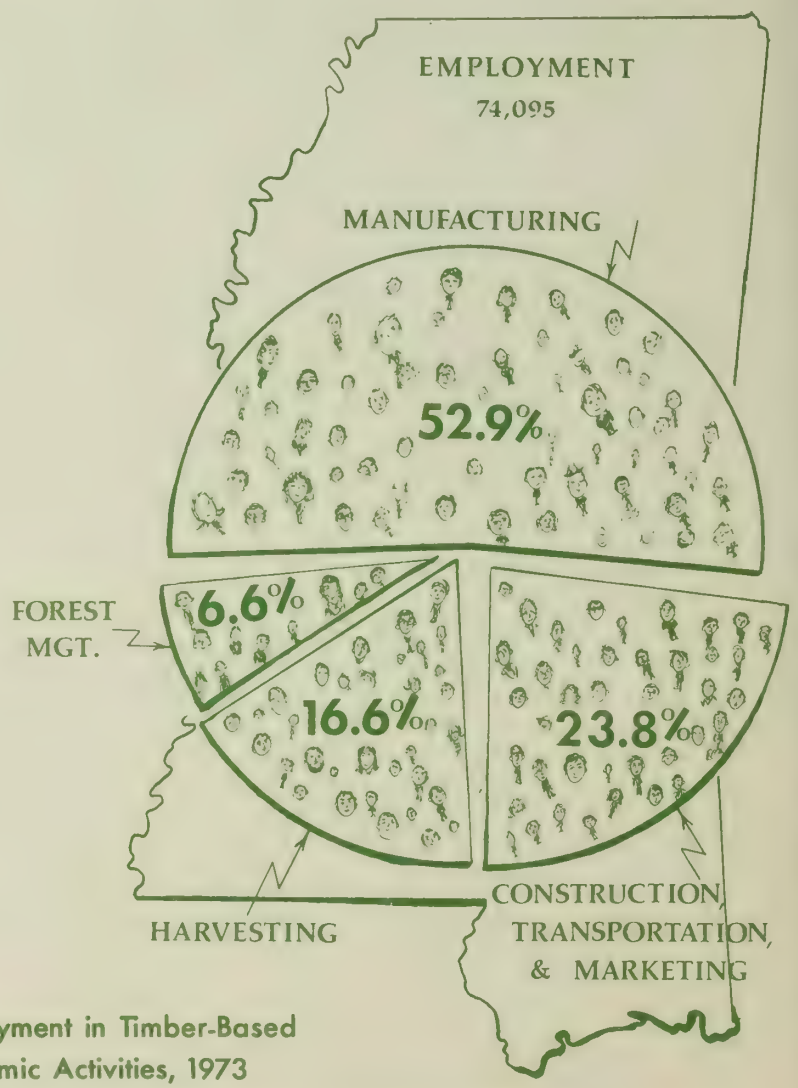

Figure 7. Employment in Timber-Based Economic Activities, 1973

Table 6. Estimated payrolls in timber-based economic activities, Mississippi, 1968 and 1973.

Item	1968	1973
	-$-	-$-
Forest Management	11,695,000	21,043,000
Harvesting	37,958,000	52,777,300
Manufacturing		
Lumber and wood products	100,681,000	154,566,800
Furniture and fixtures	26,300,000	48,362,700
Paper and allied products	52,271,000	72,131,600
Miscellaneous	19,484,000	—
Sub-Total	198,736,000	275,061,100
Construction, Transportation and Marketing	69,509,000	120,783,100
STATE TOTAL	317,898,000	469,664,500

Source: 1968 figures from Moak (1971), those for 1973 computed by procedures as outlined in the Appendix.

Payrolls

Most opportunities for non-farm cash wages were in the harvesting and processing of timber when lumbering first came to Mississippi. Probably two thirds of all industrial payrolls in the 1920's came from this source. Payrolls in 1946 were estimated at 200 million dollars, rose to 318 million in 1968, and climbed to 470 million in 1973 (Table 6).

Percentages for each sector are illustrated in Figure 8.

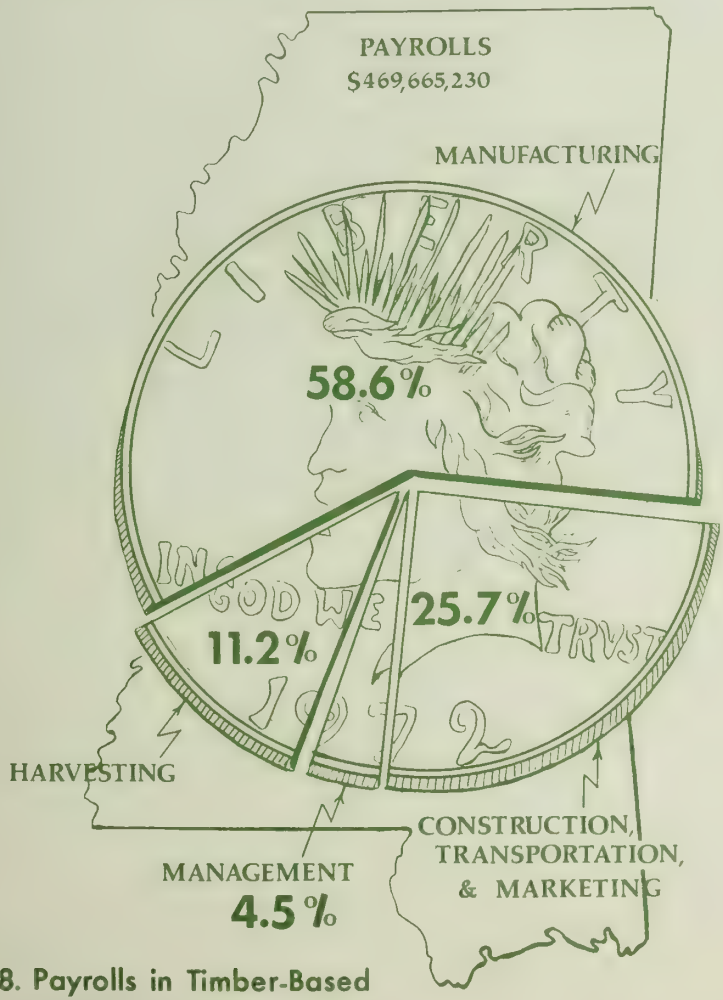

Figure 8. Payrolls in Timber-Based Economic Activities, 1973

Value Added

Value added that can be attributed to timber-based activities in Mississippi has increased greatly since the 1940's. It was over $300 million in 1954, maintained this level in 1958, climbed to $618 million in 1968, and was well over *one billion dollars* in 1973 (Table 7).

Sector percentages are shown in Figure 9.

Table 7. Value added that can be attributed to timber-based activities, Mississippi, selected years.

Item	1954	1958	1968	1973
	-------Thousands of Dollars-------			
Forest Management	33,150	25,300	53,708	118,352
Harvesting	64,450	42,850	62,619	119,510
Manufacturing	175,050	166,550	395,007	659,526
Construction, Transportation & Marketing	48,200	66,000	106,429	136,245
STATE TOTALS	320,850	300,700	617,763	1,033,633

Note: 1954 and 1958 data from: Hair, Dwight. 1963. The economic importance of timber in the U.S., U.S.D.A. Misc. Pub. No. 941. 1968 and 1973 data computed by the author from Annual Reports, Mississippi Employment Security Commission, Jackson, MS., and from the 1972 Census of Manufacturers projected to 1973. (See Appendix for details).

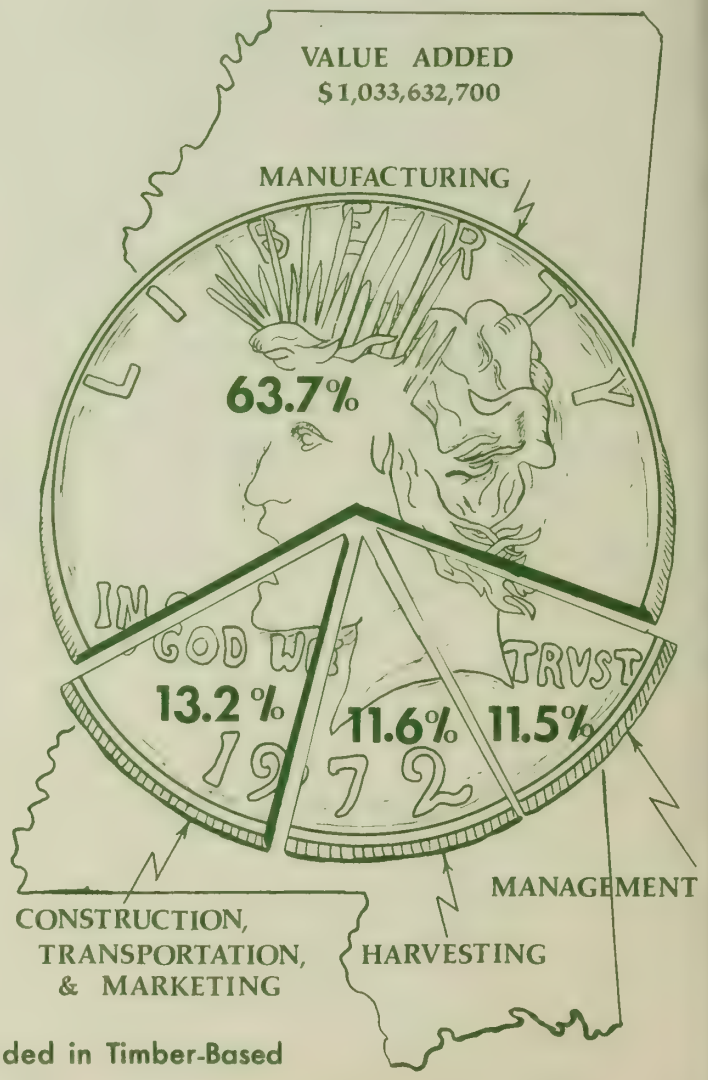

Figure 9. Value Added in Timber-Based Activities, 1973

Manufacturing

Manufacturing of wood products is one of the top manufacturing industries in the state. Comparisons by major components of the industry reveal that lumber and wood products contribute more to annual payrolls in Mississippi than the production of paper and allied products and the manufacture of furniture (Figure 10). The same relationship exists for value added in manufacture (Figure 11). However, value added per worker in the pulp and paper industry is more than 1½ times that in the solid products industry.

Furniture manufacturing also contributes substantially to value added in Mississippi---over 48 million dollars in 1968, over 100 million in 1973.

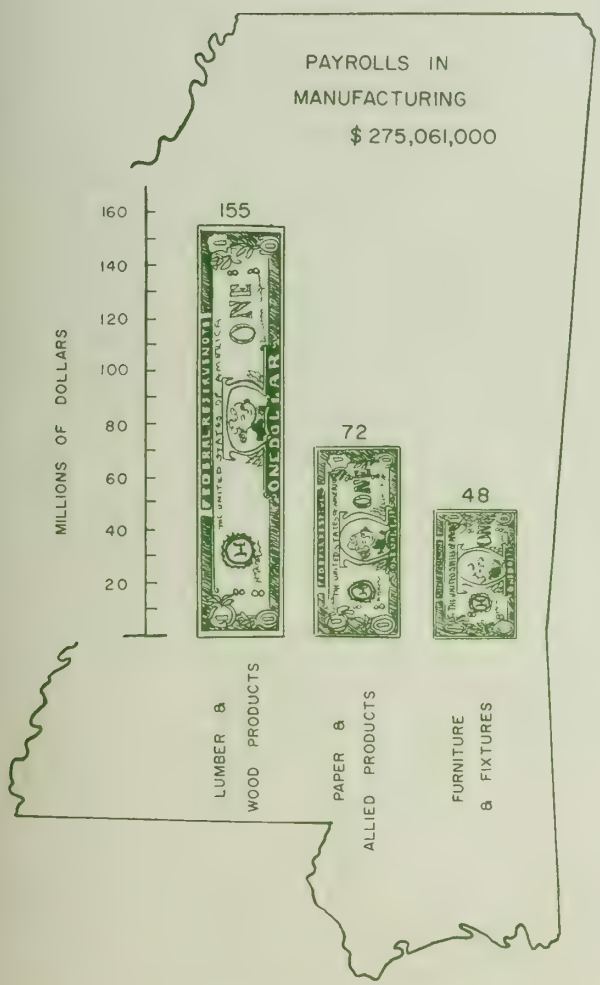

Figure 10. Payrolls in the Manufacture of Timber-Based Products, 1973

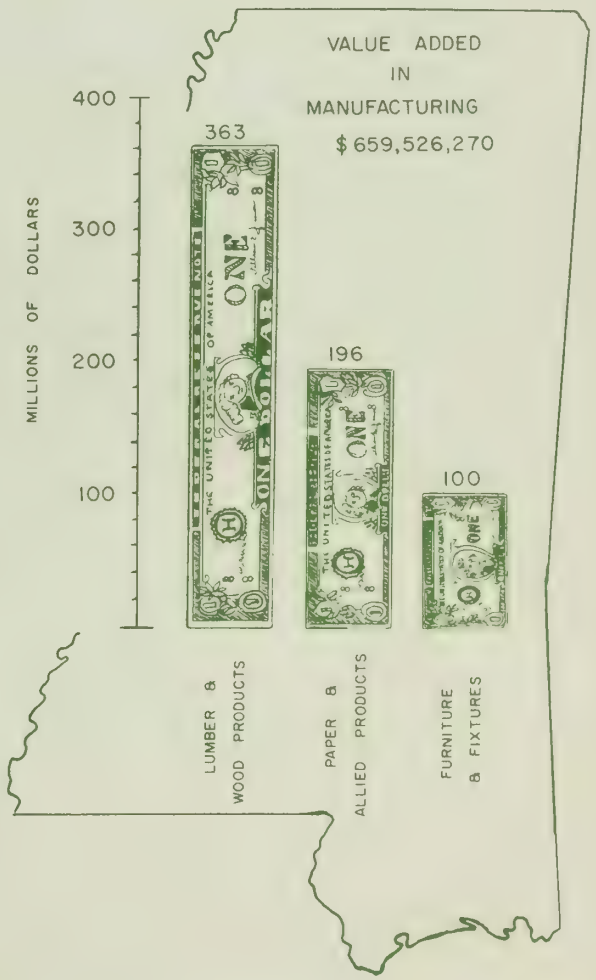

Figure 11. Value Added in the Manufacture of Timber-Based Products, 1973

Appendix

Procedure for estimates in the report

Employment in forest management activities---Computed from state and federal agency figures, Miss. Directory of Foresters, personal contacts, and by estimating activities of nonindustrial forest landowners. The 135,000 nonindustrial owners were estimated to have spent 3½ days per year in management of their forests---protection, inspection and other activities, including timber sales.

Employment in harvesting---Computed by dividing productivity estimates for pulpwood, sawtimber, and miscellaneous products into total cut as reported in the 1973 Mississippi Severance Tax Report. Productivity per man year for pulpwood was estimated to be 540 cords, for sawlogs 320,000 board feet.

Employment in Manufacturing---Number of covered employees was computed as follows: Number reported by Mississippi Employment Security Commission for 1973 in SIC Code 24 (lumber and wood products), less those reported for logging camps, plus 55 percent of those reported in SIC Code 25 (furniture and fixtures), plus those reported in SIC Code 26 (paper and allied products).

Employment in Construction, Transportation, and Marketing - Estimated by applying sector ratios to total employment reported by the Mississippi Employment Security Commission for 1973. Ratios developed from procedures used by Hair (1963) and adjusted to Mississippi conditions for 1968 as reported by Moak (1971). Employment in timber-related activities was 22 percent of total employment in construction, 11.3 percent in transportation, and 4.4 percent in marketing.

Payrolls from Forest Management Activities---The sum of estimates obtained from State and Federal land management payrolls, payrolls of primary and miscellaneous industry, earnings of consultants, and the value of nonindustrial landowners' time at $1.50 per day.

Payrolls from Harvesting Activities---The product of total number of workers in harvesting multiplied by wages equivalent to these reported in the Mississippi Employment Security Commission annual report for 1973 for SIC Code 241 (logging camps).

Payrolls from Manufacturing---Taken from the 1973 Mississippi Employment Security Commission report of payrolls for SIC Code 26 (paper and allied products), SIC Code 24 (lumber and wood products), and using 55 percent of payrolls reported in SIC Code 25 (Furniture and fixtures).

Payrolls From Construction, Transportation and Marketing---Estimated as follows: timber payrolls in 1968 (Moak, 1971) expressed as a percentage of total payrolls reported by the Mississippi Employment Security Commission for 1973. Ratios reported above for estimating number of workers in construction, transportation and marketing were used to compute payrolls for these sectors.

Value Added in Forest Management---Considered to be equal to stumpage value. Stumpage value estimated by applying prices to volume cut reported by Timber Severance Tax Division, State Tax Commission, Jackson, Mississippi. Stumpage prices derived from U.S.D.A. misc. publication #1239, The Demand and Price Situation for Forest Products, the Mississippi Forestry Commission Reports and information provided by U.S. Forest Service personnel, Jackson, Miss., and from personal contacts with buyers and sellers. Pine sawtimber was valued at $80.90 per thousand board feet, hardwood sawtimber $40.00 per thousand board feet, pine pulpwood $6.50 per cord, and hardwood pulpwood $4.25 per cord.

Value Added in Harvesting---Estimated by adjusting value of timber delivered to first buyers in 1973 by the relationship of value added by harvesting to value of shipments as reported by Census of Manufacturers for 1972 in SIC 241 (logging camps and logging contractors).

Value Added in Manufacturing---Computed for 1973 by taking Mississippi Employment Security figures for payrolls, adjusted to that attributed to timber, and then applying the factor, dollars of value added per dollar of payroll reported in the 1972 Census of Manufacturing.

Value Added in Construction, Transportation, and Marketing - Estimated by applying a ratio to the 1973 payrolls computed for this report. This ratio is the composite developed from ratios reported by Hair (1954 and 1968) and Moak (1971).

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Bulletin 855

May 1977

Domestic Shipments Of U.S. Cotton, 1975-76 Season

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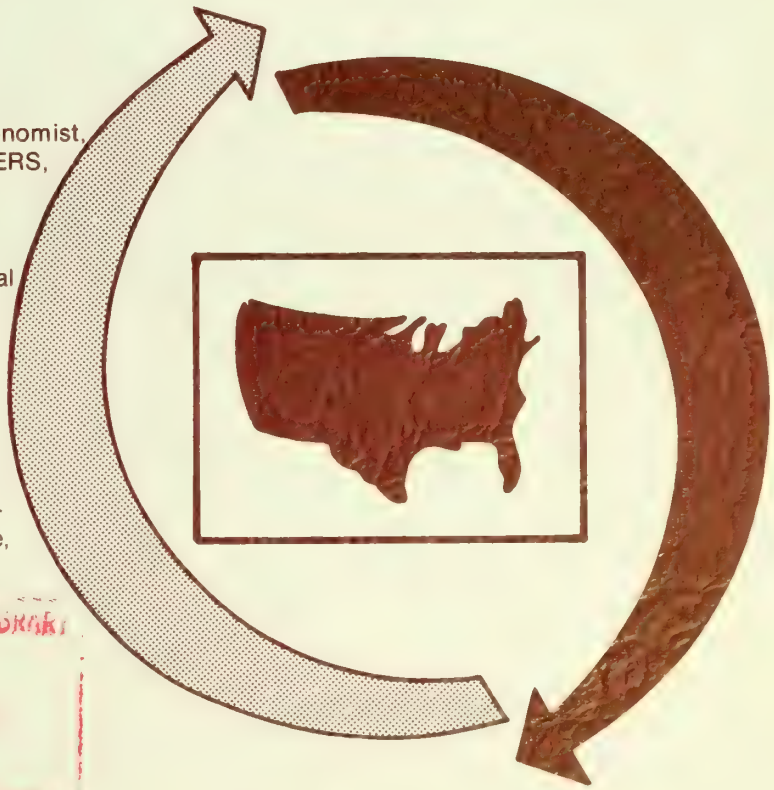

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Preface

This report supersedes earlier reports on cotton shipments---*Traffic Pattern of American Raw Cotton Shipments, Season 1961-62,* MRR 705, ERS, USDA, April 1965, and *Domestic Shipments of U.S. Cotton, 1970-71 Season,* Statistical Bulletin 493, MED, ERS, USDA, March 1972---and is one in a continuing series that reports results of studies designed to obtain and maintain current cotton marketing statistics. These studies form an integral part of a much broader study of the entire cotton system, from production through milling.

The authors wish to express their appreciation to members of the cotton warehousing industry for their continued support of this research. Special appreciation is due the many individuals who sacrificed valuable work time at the peak of their season to provide data for this study. About 82 percent of all warehouse operators receiving the mail questionnaires completed and promptly returned them. Additionally, the authors express sincere appreciation to Elaine Bounds, Economic Research Service, U.S. Department of Agriculture, for preparing the tables in the report.

Domestic Shipments of U.S. Cotton, 1975-76 Season

Cotton merchants used motor trucks for hauling over 47 percent of the 9.71 million bales of cotton shipped during the 1975-76 season, rail transportation for the remaining 53 percent. Comparable figures from previous reports show that 27 percent of shipments were by motor vehicle in 1961-62, about 36 percent by this mode in 1970-71. Rail shipments accounted for 73 percent of the total in 1961-62 and 64 percent in 1970-71.

The amount of cotton transported in the South Central and Western regions has increased by 33 and 38 percent, respectively, since the 1961-62 season. The most significant change in transportation mode between 1970-71 and 1975-76 occurred in the South Central and Southwestern regions, where the share carried by motor trucks increased 15.2 and 16.6 percent, respectively.

Intrastate shipments accounted for about 54 percent of total shipments in the Southeastern region, interstate shipments about 42 percent. The remaining 4 percent moved to port facilities, to Canada, or to interior concentration points. Intrastate shipments ranged from 33 percent of total shipments in Alabama to 87.4 percent in North Carolina. Truck shipments within the Southeastern region decreased slightly from 64.8 percent in 1970-71 to 63.2 percent in 1975-76 but were slightly over eight percent greater than in 1961-62.

Truck shipments from the South Central region increased from 20.9 to 38.4 percent in 1961-62 and 1970-71, respectively, to 53.6 percent in 1975-76. Total shipments from the South Central region to the Southeastern mill area increased to 77.2 percent, compared with 74.5 percent in 1970-71 and 70.2 percent in 1960-61.

Rail shipments from the Southwestern region decreased from 86.3 percent in 1970-71 to 69.7 percent in 1975-76. Shipments by this mode in 1961-62 accounted for 77.5 percent of the total. Nearly one third of the 3.4 million bales originating in the Southwestern region was shipped to the Southeastern mill area; 47.0 percent went to Texas ports, 6.4 percent to Pacific Coast ports. None of the shipments originating in the Southwestern region in 1961-62 went to Pacific Coast ports, and only 0.7 percent of total shipments in 1970-71 went to these facilities. The remainder went to interior concentration points (6.7 percent), other U.S. ports and Canada.

Shipments from the Western region to the Southeastern mill area increased from 38.4 percent in 1970-71 to 41.6 percent in 1975-76 but were below the 1961-62 level of 45.1 percent. Shipments to Pacific Coast ports also declined during the 1975-76 season. Slightly more than 45 percent of all shipments from the Western region moved to California ports in 1975-76 compared with 51 percent in 1970-71. Only 35.4 percent was shipped to these facilities in 1961-62. Shipments to Texas ports increased from 1.9 percent in 1970-71 to 2.8 percent in 1975-76 but were below the 6.3 percent shipped in 1961-62.

Almost 26 percent of 1975-76 shipments (beltwide) went to ports, compared with about 29 percent in 1961-62 and 1970-71. Shipments to ports in 1975-76 ranged from 1.3 percent in the Southeastern region to 57.8 percent in the Southwestern region.

These findings are based on a survey of Government-approved warehouses throughout the Cotton Belt. Data on origins, destinations, number of bales, and mode of transportation for the 1975-76 season were obtained by a survey of Government-approved warehouses throughout the Cotton Belt. The resulting tables and figures show: (1) the major destinations to which cotton was shipped from various producing states; (2) the relative importance of rail and truck shipments; and (3) the shifts that have occurred in type of carrier used to transport cotton from warehouses since 1961-62 and 1970-71. Total shipments may not coincide exactly with production data for a State or region, because a few approved warehouses did not respond and warehouses not approved under Government programs were not included. Also, some cotton moved directly from gins to mills and some cotton from previous crops entered distribution channels. Moreover, destinations reported were first destination and may not have been final destinations. Data are not available for determining the extent to which reshipment contributed to total shipments.

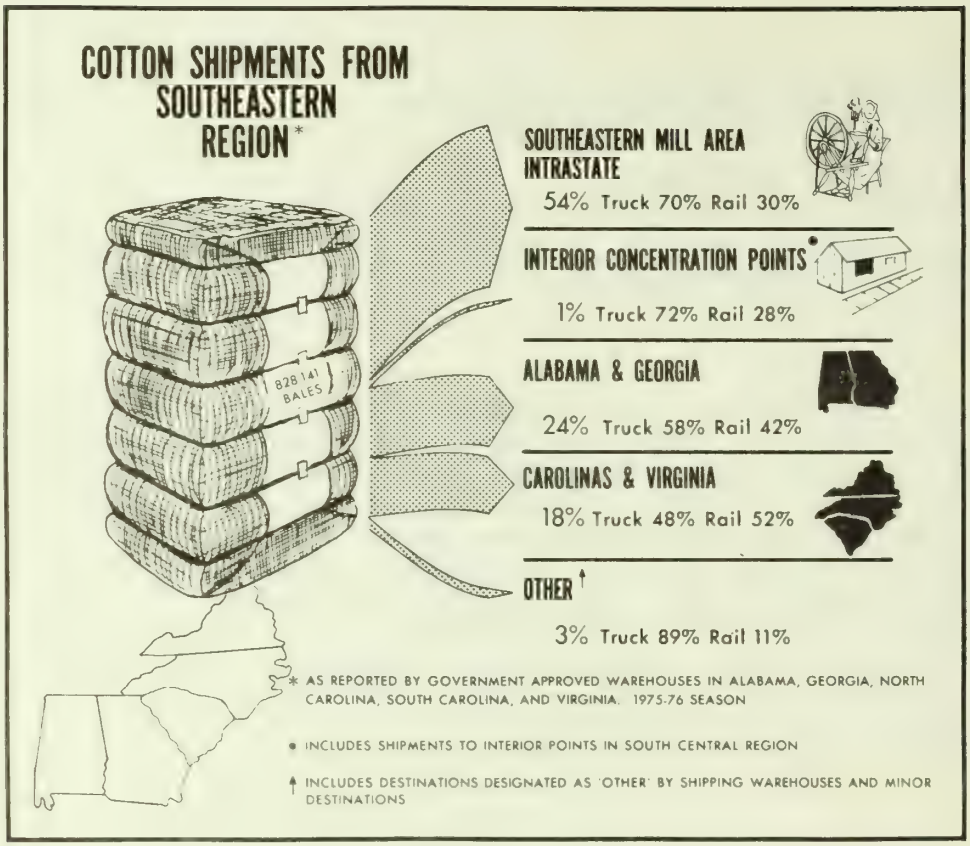
COTTON SHIPMENTS FROM SOUTHEASTERN REGION*
828 141 BALES
SOUTHEASTERN MILL AREA INTRASTATE
54% Truck 70% Rail 30%
INTERIOR CONCENTRATION POINTS•
1% Truck 72% Rail 28%
ALABAMA & GEORGIA
24% Truck 58% Rail 42%
CAROLINAS & VIRGINIA
18% Truck 48% Rail 52%
OTHER†
3% Truck 89% Rail 11%
* AS REPORTED BY GOVERNMENT APPROVED WAREHOUSES IN ALABAMA, GEORGIA, NORTH CAROLINA, SOUTH CAROLINA, AND VIRGINIA. 1975-76 SEASON
• INCLUDES SHIPMENTS TO INTERIOR POINTS IN SOUTH CENTRAL REGION
† INCLUDES DESTINATIONS DESIGNATED AS 'OTHER' BY SHIPPING WAREHOUSES AND MINOR DESTINATIONS

Figure 1

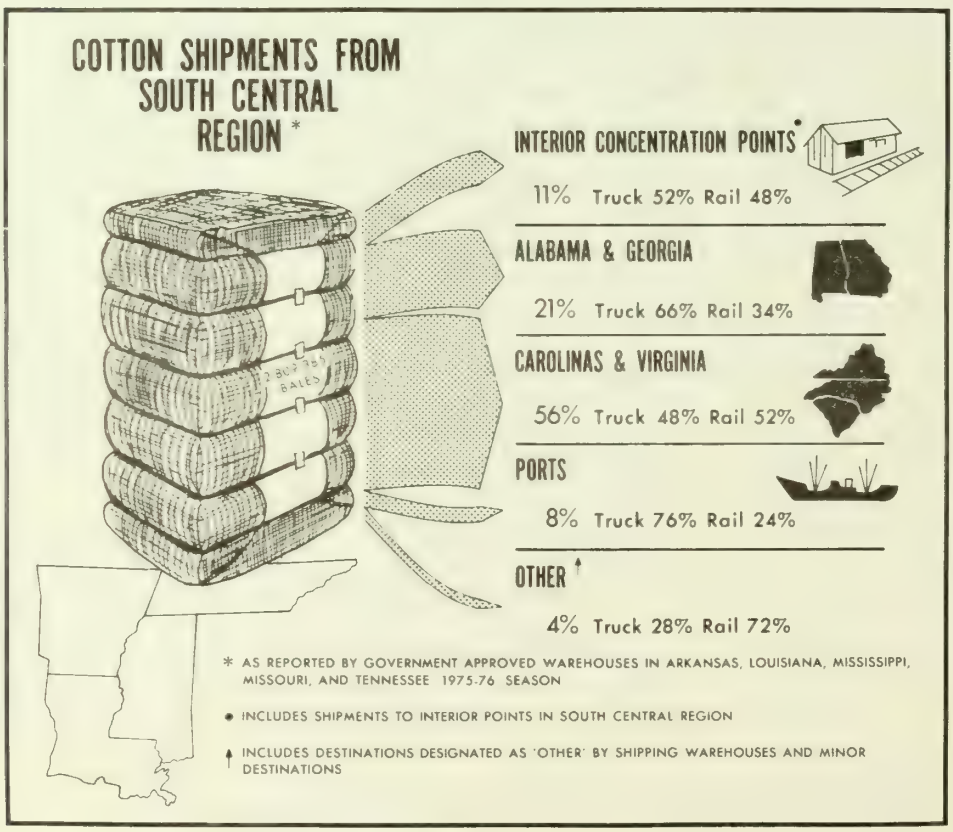
COTTON SHIPMENTS FROM SOUTH CENTRAL REGION*
INTERIOR CONCENTRATION POINTS•
11% Truck 52% Rail 48%
ALABAMA & GEORGIA
21% Truck 66% Rail 34%
CAROLINAS & VIRGINIA
56% Truck 48% Rail 52%
PORTS
8% Truck 76% Rail 24%
OTHER†
4% Truck 28% Rail 72%
* AS REPORTED BY GOVERNMENT APPROVED WAREHOUSES IN ARKANSAS, LOUISIANA, MISSISSIPPI, MISSOURI, AND TENNESSEE 1975-76 SEASON
• INCLUDES SHIPMENTS TO INTERIOR POINTS IN SOUTH CENTRAL REGION
† INCLUDES DESTINATIONS DESIGNATED AS 'OTHER' BY SHIPPING WAREHOUSES AND MINOR DESTINATIONS

Figure 2

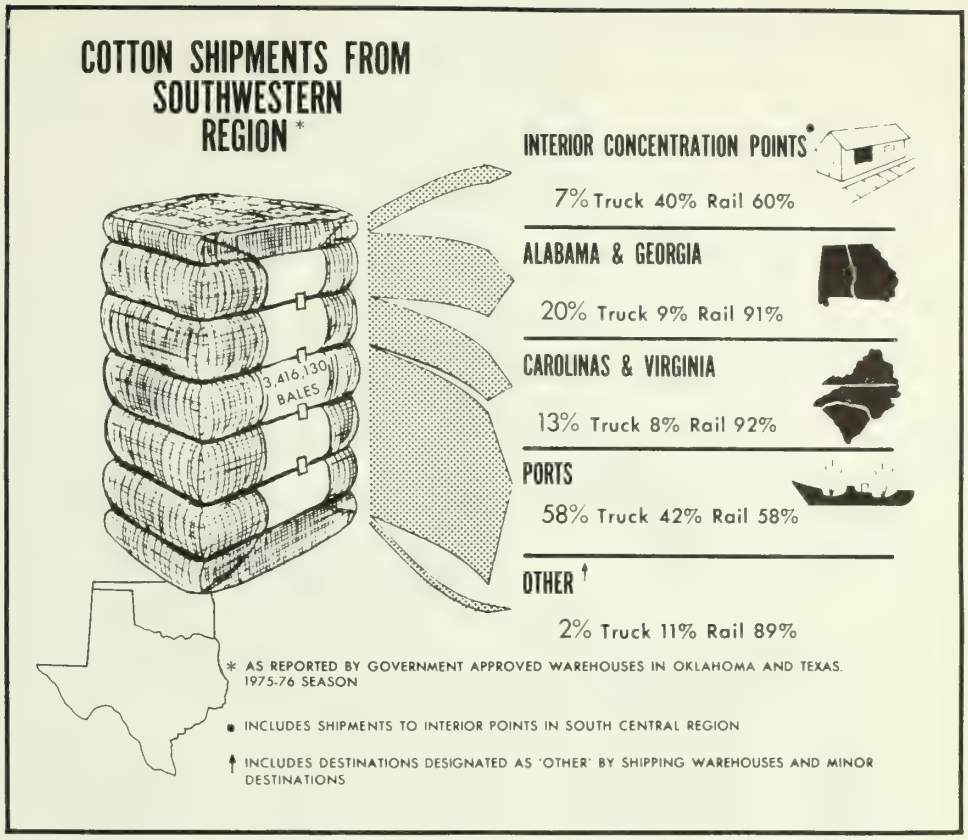
COTTON SHIPMENTS FROM SOUTHWESTERN REGION *
3,416,130 BALES
INTERIOR CONCENTRATION POINTS •
7% Truck 40% Rail 60%
ALABAMA & GEORGIA
20% Truck 9% Rail 91%
CAROLINAS & VIRGINIA
13% Truck 8% Rail 92%
PORTS
58% Truck 42% Rail 58%
OTHER †
2% Truck 11% Rail 89%
* AS REPORTED BY GOVERNMENT APPROVED WAREHOUSES IN OKLAHOMA AND TEXAS. 1975-76 SEASON
• INCLUDES SHIPMENTS TO INTERIOR POINTS IN SOUTH CENTRAL REGION
† INCLUDES DESTINATIONS DESIGNATED AS 'OTHER' BY SHIPPING WAREHOUSES AND MINOR DESTINATIONS

Figure 3

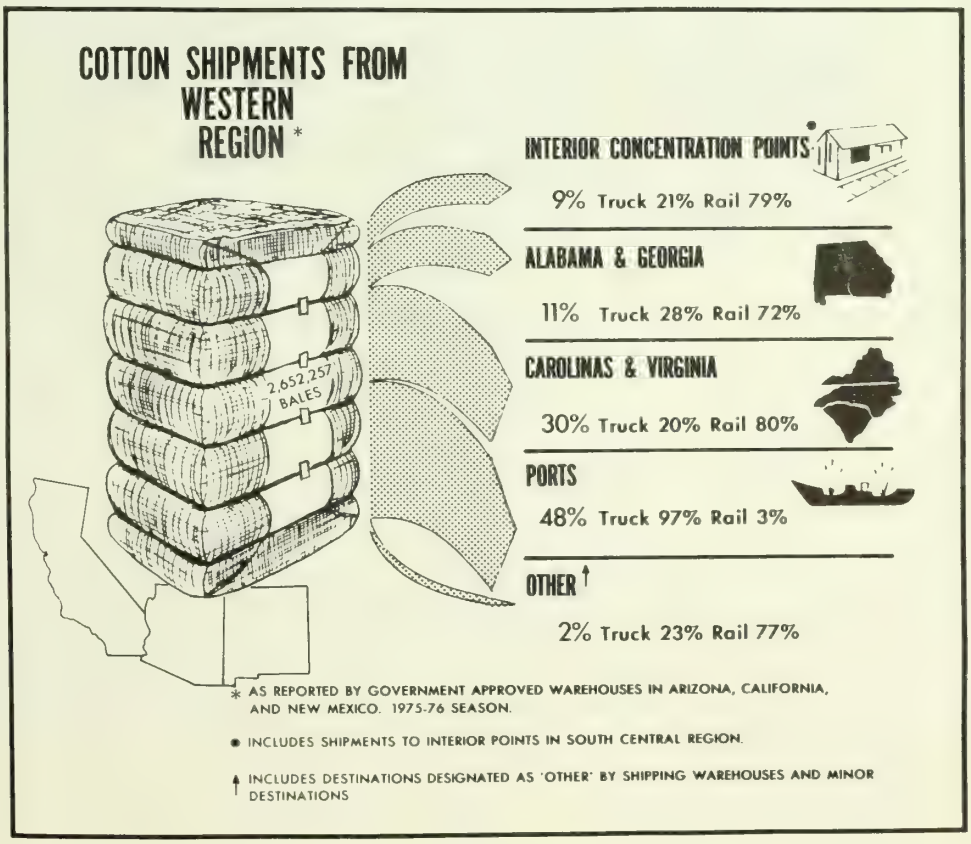
COTTON SHIPMENTS FROM WESTERN REGION *
2,652,257 BALES
INTERIOR CONCENTRATION POINTS •
9% Truck 21% Rail 79%
ALABAMA & GEORGIA
11% Truck 28% Rail 72%
CAROLINAS & VIRGINIA
30% Truck 20% Rail 80%
PORTS
48% Truck 97% Rail 3%
OTHER †
2% Truck 23% Rail 77%
* AS REPORTED BY GOVERNMENT APPROVED WAREHOUSES IN ARIZONA, CALIFORNIA, AND NEW MEXICO. 1975-76 SEASON.
• INCLUDES SHIPMENTS TO INTERIOR POINTS IN SOUTH CENTRAL REGION.
† INCLUDES DESTINATIONS DESIGNATED AS 'OTHER' BY SHIPPING WAREHOUSES AND MINOR DESTINATIONS

Figure 4

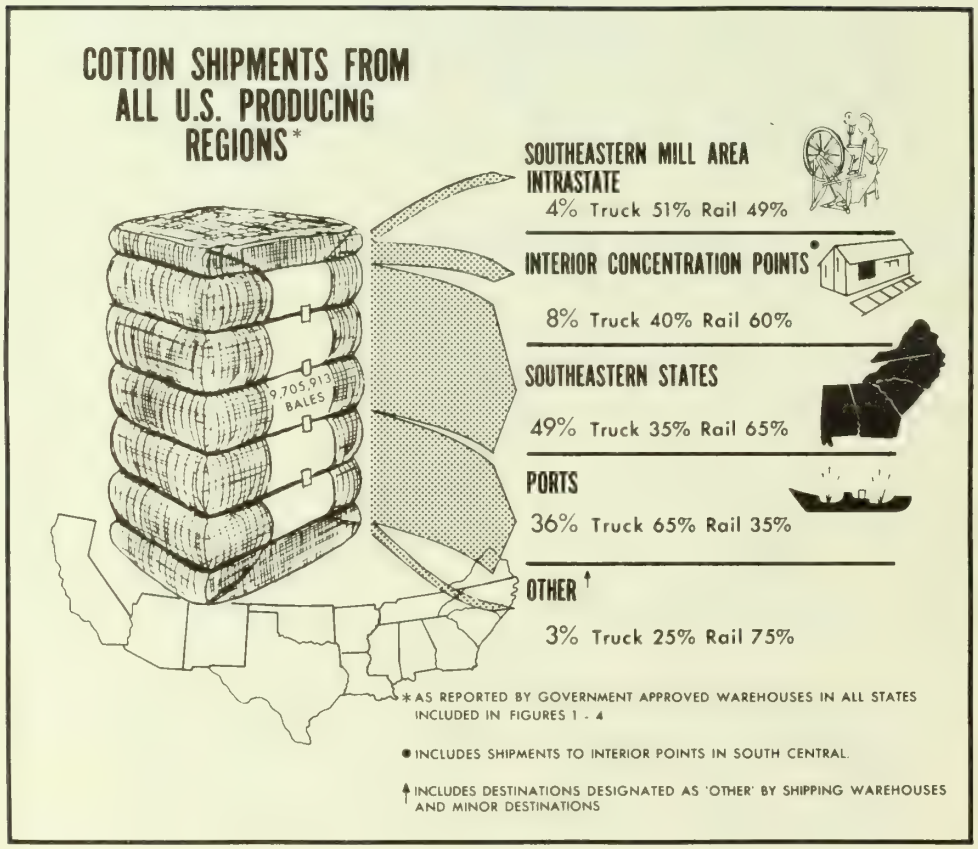
COTTON SHIPMENTS FROM ALL U.S. PRODUCING REGIONS*
9,705,913 BALES
SOUTHEASTERN MILL AREA INTRASTATE
4% Truck 51% Rail 49%
INTERIOR CONCENTRATION POINTS•
8% Truck 40% Rail 60%
SOUTHEASTERN STATES
49% Truck 35% Rail 65%
PORTS
36% Truck 65% Rail 35%
OTHER†
3% Truck 25% Rail 75%
*AS REPORTED BY GOVERNMENT APPROVED WAREHOUSES IN ALL STATES INCLUDED IN FIGURES 1 - 4
• INCLUDES SHIPMENTS TO INTERIOR POINTS IN SOUTH CENTRAL.
† INCLUDES DESTINATIONS DESIGNATED AS 'OTHER' BY SHIPPING WAREHOUSES AND MINOR DESTINATIONS

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Table 1. Southeastern Region: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area interstate shipments (excludes ports):				
Alabama	47,997	61,209	109,206	13.2
Georgia	33,943	50,724	84,667	10.2
North Carolina	897	13,776	14,673	1.8
South Carolina	84,166	50,968	135,134	16.3
Total	167,003	176,766	343,680	41.5
Southeastern mill area intrastate shipments (excludes ports):				
Alabama	15,268	42,271	57,539	6.9
Georgia	5,871	78,933	84,804	10.2
North Carolina	36,313	91,858	128,171	15.5
South Carolina	74,660	100,944	175,604	21.2
Total	132,112	314,006	446,118	53.8
Total mill area	299,115	490,683	789,798	95.3
New England, Eastern, and Midwestern States	882	1,803	2,685	.3
Interior concentration points[1]	[2]3,311	[3]8,606	11,917	1.4
Canada	---	---	----	---
Ports:				
Atlantic coast	328	7,191	7,519	.9
Central gulf	---	3,324	3,324	.4
Mobile, Ala., Pensacola and Panama City, Fla.	---	125	125	.1
Other[4]	1,569	11,204	12,773	1.6
Total shipments	305,205	522,936	828,141	100.0
	Percent	Percent	Percent	
Distribution	36.8	63.2	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Mississippi, 222; Tennessee, 1,708; Texas, 1,381.
[3]Mississippi, 5,351; Tennessee, 2,380; Louisiana, 268; Texas, 607.
[4]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 2. South Central Region: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	122,782	155,015	277,797	9.9
Georgia	76,697	229,295	305,992	10.9
North Carolina	335,870	391,079	726,949	25.9
South Carolina	470,882	338,228	809,110	28.7
Virginia	16,318	33,997	50,315	1.8
Total mill area	1,022,549	1,147,614	2,170,163	77.2
New England, Eastern, and Midwestern States	4,832	1,157	5,989	.2
Interior concentration points[1]	[2]144,799	[3]158,362	303,161	10.8
Canada	61,195	2,902	64,097	2.3
Ports:				
West gulf	4,345	15,080	19,425	.7
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	31,177	149,748	180,925	6.4
Mobile, Ala.; Pensacola, Fla; and Panama City, Fla.	268	2,005	2,273	.1
Pacific coast	18,512	160	18,672	.7
Atlantic coast	---	78	78	[4]
Other[5]	16,328	28,274	44,602	1.6
Total shipments	1,304,005	1,505,380	2,809,385	100.0
	Percent	Percent	Percent	
Distribution	46.4	53.6	100.0	

[1]Nonconsuming points from which cotton is reshipped to final destinations.

[2]Arkansas, 19,253; Louisiana, 6,551; Mississippi, 13,428; Missouri, 2,985; Tennessee, 100,526; Texas, 2,056.

[3]Arkansas, 35,848; Louisiana, 8,146; Mississippi, 36,285; Missouri, 3,782; Tennessee, 60,184; Texas, 14,117.

[4]Less than 0.05 percent.

[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 3. Southwestern Region: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	314,401	17,991	332,392	9.7
Georgia	311,477	45,910	357,387	10.5
North Carolina	171,394	14,383	185,777	5.4
South Carolina	223,719	21,864	245,583	7.2
Virginia	1,304	499	1,803	.1
Total mill area	1,022,295	100,647	1,122,942	32.9
New England, Eastern, and Mid-western States	18,403	504	18,907	.6
Interior concentration points[1]	[2]138,470	[3]90,863	229,333	6.7
Canada	32,250	---	32,250	.9
Ports:				
West gulf	825,593	780,986	1,606,579	47.0
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	52,784	38,310	91,094	2.7
Mobile, Ala.; Pensacola, Fla.; and Panama City, Fla.	204	---	204	[5]
Atlantic coast	55,672	1,359	57,031	1.7
Pacific coast	208,702	11,622	220,324	6.4
Other[4]	28,308	9,158	37,466	1.1
Total shipments	2,382,681	1,033,449	3,416,130	100.0
	Percent	Percent	Percent	
Distribution	69.7	30.3	100.0	

[1]Nonconsuming points from which cotton is reshipped to final destination.

[2]Arkansas, 2,753; Louisiana, 100; Mississippi, 4,299; Missouri, 7,560; Tennessee, 17,731; Texas, 106,027.

[3]Arkansas, 1,484; Louisiana, 266; Mississippi, 14; Missouri, 3,032; Tennessee, 1,667; Texas, 84,400.

[4]Minor destinations and destinations designated as "other" by shipping warehouse.

[5]Less than 0.05 percent.

Table 4. Western Region: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	94,316	24,171	118,487	4.5
Georgia	121,248	60,090	181,338	6.8
North Carolina	277,945	112,596	390,541	14.7
South Carolina	342,332	30,133	372,465	14.1
Virgina	20,175	18,556	38,731	1.5
Total mill area	856,016	245,546	1,101,562	41.6
New England, Eastern, and Midwestern States	297	240	537	[1]
Interior concentration points[2]	[3]177,131	[4]46,614	223,745.	8.4
Canada	19,682	196	19,878	.7
Ports:				
West gulf	19,072	55,895	74,967	2.8
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	4,773	171	4,944	.2
Pacific coast	12,507	1,182,860	1,195,367	45.1
Other[5]	20,050	11,207	31,257	1.2
Total shipments	1,109,528	1,542,729	2,652,257	100.0
	Percent	Percent	Percent	
Distribution	41.8	58.2	100.0	

[1]Less than 0.05 percent.

[2]Nonconsuming points from which cotton is reshipped to final destination.

[3]Arkansas, 29,031; California, 4,047; Louisiana, 3,656; Mississippi, 19,062; Missouri, 400; Tennessee, 63,961; Texas, 56,974.

[4]Arkansas, 515; California, 6,232; Louisiana, 2; Mississippi, 14; Tennessee, 20,788; Texas, 19,063.

[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 5. Alabama: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Georgia	19,813	34,837	54,650	31.3
North Carolina	10,054	14,873	24,927	14.3
South Carolina	17,515	11,495	29,010	16.6
Virginia	615	4	619	.4
Total mill area	47,997	61,209	109,206	62.6
New England, Eastern and Midwestern States	---	---	---	---
Interior concentration points[1]	[2]1,204	[3]4,547	5,751	3.3
Alabama (excluding ports)	15,268	42,271	57,539	33.0
Canada	---	---	---	---
Ports:				
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	---	425	425	.2
Other[5]	---	1,529	1,529	.9
Total shipments	64,469	109,981	174,450	100.0
	Percent	Percent	Percent	
Distribution	37.0	63.0	100.0	

[1]**Nonconsuming points within the Cotton Belt from which cotton is reshipped to final destinations.**

[2]**Mississippi, 222; Tennessee, 982.**

[3]**Mississippi, 3,684; Tennessee, 256; Texas, 607.**

[4]**Minor destinations and destinations designated as "other" by shipping warehouse.**

Table 6. Georgia: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	9,792	9,254	19,046	10.6
North Carolina	4,869	11,975	16,844	9.4
South Carolina	19,282	29,262	48,544	27.0
Virginia	---	233	233	.1
Total mill area	33,943	50,724	84,667	47.2
New England, Eastern, and Midwestern States	630	10	640	.4
Interior concentration points[1]	---	[2]536	536	.3
Georgia (excluding ports)	5,871	78,933	84,804	47.2
Ports:				
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	---	499	499	.3
Mobile, Ala.; Pensacola, Fla.; and Panama City, Fla.	---	125	125	.1
Atlantic coast	328	4,504	4,832	2.7
Other[3]	---	3,379	3,379	1.9
Total shipments	40,772	138,710	179,482	100.0
	Percent	Percent	Percent	
Distribution	22.7	77.3	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Mississippi, 369; Tennessee, 167
[3]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 7. North Carolina: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	127	823	950	.6
Georgia	115	6,563	6,678	4.6
South Carolina	537	5,120	5,657	3.9
Virginia	118	1,270	1,388	.9
Total mill area	897	13,776	14,673	100.0
New England, Eastern, and Midwestern States	---	---	---	---
Interior concentration points[1]	---	---	---	---
North Carolina (excluding ports)	36,313	91,858	128,171	87.4
Other[2]	---	3,809	3,809	2.6
Total shipments	37,210	109,443	146,653	100.0
	Percent	Percent	Percent	
Distribution	25.4	74.6	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 8. South Carolina: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	3,373	1,866	5,239	1.6
Georgia	9,101	11,277	20,378	6.2
North Carolina	69,693	37,198	106,891	32.7
Virginia	1,999	627	2,626	.8
Total mill area	84,166	50,968	135,134	41.3
New England, Eastern, and Mid-western States	252	1,793	2,045	.6
Interior concentration points[1]	[2]2,107	[3]3,523	5,630	1.7
South Carolina (excluding ports)	74,660	100,944	175,604	53.7
Canada	---	---	---	---
Ports:				
West gulf	---	2,400	2,400	.7
Atlantic coast	---	2,687	2,687	.8
Other[4]	1,569	2,487	4,056	1.2
Total shipments	162,754	164,802	327,556	100.0
	Percent	Percent	Percent	
Distribution	49.7	50.3	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Tennessee, 726; Texas, 1,381.
[3]Includes shipment to Louisiana, 268; Mississippi, 1,298, Tennessee, 1,957.
[4]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 9. Arkansas: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	14,456	21,073	35,529	5.3
Georgia	15,226	27,500	42,726	6.3
North Carolina	95,867	89,363	185,230	27.4
South Carolina	140,422	85,237	225,659	33.4
Virginia	4,011	7,243	11,254	1.7
Total mill area	269,982	230,416	500,398	74.1
New England, Eastern, and Midwestern States	41	84	125	[1]
Interior concentration points[2]	[3]31,925	[4]27,679	59,604	8.8
Arkansas (excluding ports)	16,978	17,801	34,779	5.1
Canada	36,065	12	36,077	5.3
Ports:				
West gulf	1,762	3,595	5,357	.8
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	9,424	24,732	34,156	5.1
Other[5]	3,294	2,227	5,521	.8
Total shipments	369,471	306,546	676,017	100.0
	Percent	Percent	Percent	
Distribution	54.7	45.3	100.0	

[1]Less than 0.05 percent.

[2]Nonconsuming establishments from which cotton is reshipped to final destinations.

[3]Includes shipments to Louisiana, 1,982; Mississippi, 757; Tennessee, 28,070; Texas, 1,11

[4]Includes shipments to Louisiana, 1,363; Mississippi, 4,056, Missouri, 191; Tennesse 17,067; and Texas, 5,002.

[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 10. Louisiana: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	12,603	14,802	27,405	8.7
Georgia	9,317	28,160	37,477	11.9
North Carolina	49,205	59,353	108,558	34.5
South Carolina	39,999	28,312	68,311	21.6
Virginia	1,766	4,316	6,082	1.9
Total mill area	112,890	134,943	247,833	78.6
New England, Eastern, and Midwestern States	207	28	235	.1
Interior concentration points[1]	[2]10,220	[3]17,003	27,223	8.6
Louisiana (excluding ports)	4,511	3,140	7,651	2.4
Canada	3,359	253	3,612	1.1
Ports:				
West gulf	---	2,444	2,444	.8
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	15,229	8,728	23,957	7.6
Mobile, Ala., Pensacola and Panama City, Fla.	268	1,972	2,240	.7
Other[4]	235	184	419	.1
Total shipments	146,919	168,695	315,614	100.0
	Percent	Percent	Percent	
Distribution	46.6	53.4	100.0	

[1]**Nonconsuming establishments from which cotton is reshipped to final destinations.**

[2]**Includes shipments to Arkansas, 312; Mississippi, 314; Tennessee, 9,483; and Texas, 111.**

[3]**Includes shipments to Arkansas, 5,251; Mississippi, 2,905; Missouri, 31; Tennessee, 4,045; and Texas 4,771.**

[4]**Minor destinations and destinations designated as "other" by shipping warehouse.**

Table 11. Mississippi: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	49,004	69,415	118,419	10.5
Georgia	21,180	127,941	149,121	13.3
North Carolina	100,727	144,880	245,607	21.8
South Carolina	165,376	170,728	336,104	29.8
Virginia	4,445	12,366	16,811	1.5
Total mill area	340,732	525,330	866,062	76.9
New England, Eastern, and Midwestern States	3,006	770	3,776	.3
Interior concentration points[1]	[2]34,353	[3]32,148	66,501	5.9
Mississippi (excluding ports)	11,692	26,067	37,759	3.3
Canada	7,268	842	8,110	.7
Ports:				
Western gulf	2,363	5,825	8,188	.8
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	3,912	84,314	88,226	7.8
Mobile, Ala.; Pensacola, Fla.; and Panama City, Fla.	---	33	33	[4]
Pacific coast	18,251	160	18,411	1.6
Other[5]	11,206	19,103	30,309	2.7
Total shipments	432,783	694,592	1,127,375	100.0
	Percent	Percent	Percent	
Distribution	38.4	61.6	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Tennessee, 34,024; and Texas, 329.
[3]Includes shipments to Arkansas, 8,169; Louisiana, 2,472; Missouri, 1,069; Tennessee 19,234; and Texas, 1,204.
[4]Less than 0.05 percent.
[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 12. Missouri: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	10,821	16,821	27,642	11.7
Georgia	8,914	17,936	26,850	11.4
North Carolina	29,421	39,046	68,467	29.1
South Carolina	31,368	29,171	60,539	25.7
Virginia	1,006	2,531	3,537	1.5
Total mill area	81,530	105,505	187,035	79.4
New England, Eastern, and Mid-western States	---	---	---	---
Interior concentration points[1]	[2]16,973	[3]11,528	28,501	12.1
Missouri (excluding ports)	2,985	2,450	5,435	2.3
Canada	1,680	---	1,680	.7
Ports:				
Western gulf	99	888	987	.4
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	1,373	6,688	8,061	3.4
Other	547	3,463	4,010	1.7
Total shipments	105,187	130,522	235,709	100.0
	Percent	Percent	Percent	
Distribution	44.6	55.4	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Arkansas, 312, Tennessee, 16,502; and Mississippi, 159.
[3]Includes shipments to Arkansas, 1,600; Louisiana, 370; Mississippi, 2,327; Tennessee, 4,843; and Texas, 2,388.
[4]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 13. Tennessee: Shipments of cotton from warehouses, by destinations and mode transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Perce
Southeastern mill area:				
Alabama	35,898	32,904	68,802	15.
Georgia	22,060	27,758	49,818	11.
North Carolina	60,650	58,437	119,087	26.
South Carolina	93,717	24,780	118,497	26.
Virginia	5,090	7,541	12,631	2.
Total mill area	217,415	151,420	368,835	81.
New England, Eastern, and Mid-western States	1,578	275	1,853	.
Interior concentration points[1]	[2]2,715	[3]5,551	8,266	1.
Tennessee (excluding ports)	12,447	14,995	27,442	6.
Canada	12,823	1,795	14,618	3.
Ports:				
Western gulf	121	2,328	2,449	.
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	1,239	25,286	26,525	5.
Atlantic coast	---	78	78	
Pacific coast	261	---	261	.
Other[5]	1,046	3,297	4,343	1.
Total shipments	249,645	205,025	454,670	100.
	Percent	Percent	Percent	
Distribution	54.9	45.1	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Arkansas, 1,651; Louisiana, 58; Mississippi, 506; and Texas, 500
[3]Includes shipments to Arkansas, 3,027; Louisiana, 801; Mississippi, 930; Missouri, 41; a Texas, 752.
[4]Less than 0.05 percent.
[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 14. Oklahoma: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	36,062	4,373	40,435	20.1
Georgia	21,097	2,203	23,300	11.6
North Carolina	18,335	952	19,287	9.6
South Carolina	10,388	378	10,766	5.3
Virginia	---	---	---	---
Total mill area	85,882	7,906	93,788	46.6
New England, Eastern, and Mid-western States	396	---	396	.2
Interior concentration points[1]	[2]7,612	[3]706	8,318	4.1
Canada	1,643	---	1,643	.8
Ports:				
Western gulf	51,699	45,614	97,313	48.3
Total shipments	147,232	54,226	201,458	100.0
	Percent	Percent	Percent	
Distribution	73.1	26.9	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Mississippi, 4,098; Tennessee, 1,614; and Texas, 1,900.
[3]Includes shipments to Arkansas, 234; Tennessee, 7; and Texas 465.

Table 15. Texas: Shipments of cotton from warehouses, by destination and mode o transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percer
Southeastern mill area:				
Alabama	278,339	13,618	291,957	9.1
Georgia	290,380	43,707	334,087	10.4
North Carolina	153,059	13,431	166,490	5.2
South Carolina	213,331	21,486	234,817	7.3
Virginia	1,304	499	1,803	.1
Total mill area	936,413	92,741	1,029,154	32.1
New England, Eastern, and Mid-western States	18,007	504	18,511	.6
Interior concentration points[1]	[2]26,731	[3]6,222	32,953	1.0
Texas (excluding ports)	104,127	83,935	188,062	5.9
Canada	30,607	---	30,607	.9
Ports:				
Western gulf	773,894	735,372	1,509,266	46.9
Lake Charles, La., New Orleans, La., and Gulfport, Miss.	52,784	38,310	91,094	2.8
Mobile, Ala., Pensacola, Fla.; and Panama City, Fla.	204	---	204	[4]
Atlantic coast	55,672	1,359	57,031	1.8
Pacific coast	208,702	11,622	220,324	6.8
Other[5]	28,308	9,158	37,466	1.2
Total shipments	2,235,449	979,223	3,214,672	
	Percent	Percent	Percent	
Distribution	69.5	30.5	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.

[2]Includes shipments to Arkansas, 2,753; Louisiana, 100; Mississippi, 201; Missouri, 7,56 and Tennessee, 16,117.

[3]Includes shipments to Arkansas, 1,250; Louisiana, 266; Mississippi, 14; Missouri, 3,032; a Tennessee, 1,660.

[4]Less than 0.05 percent.

[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 16. Arizona: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	25,276	11,068	36,344	4.4
Georgia	69,114	23,859	92,973	11.3
North Carolina	34,355	24,295	58,650	7.1
South Carolina	61,371	3,789	65,160	8.0
Virginia	---	5,772	5,772	.7
Total mill area	190,116	68,783	258,899	31.5
New England, Eastern, and Mid-western States	297	160	457	.1
Interior concentration points[1]	[2]14,030	[3]10,270	24,300	3.0
Canada	8,849	---	8,849	1.1
Ports:				
Western gulf	13,800	43,927	57,727	7.0
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	67	171	238	[4]
Pacific coast	292	452,249	452,541	55.2
Other[5]	12,393	4,983	17,376	2.1
Total shipments	239,844	580,543	820,387	100.0
	Percent	Percent	Percent	
Distribution	29.2	70.8	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Included shipments to Arkansas, 1,882; Mississippi, 1,481; Tennessee, 4,648; and Texas, 7,352.
[3]Includes shipments to Arkansas, 515; Tennessee, 316; and Texas, 9,439.
[4]Less than 0.05 percent.
[5]Minor destinations and destinations designated as "other" by shipping warehouse.

Table 17. California: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	66,793	12,283	79,076	4.6
Georgia	47,190	34,602	81,792	4.8
North Carolina	226,611	86,417	313,028	18.4
South Carolina	245,471	24,661	270,132	15.9
Virginia	19,225	12,700	31,925	1.9
Total mill area	605,290	170,663	775,953	45.6
New England, Eastern, and Midwestern States	---	80	80	[1]
Interior concentration points[2]	[3]130,377	[4]22,359	152,736	9.0
California (excluding ports)	4,047	6,232	10,279	.6
Canada	10,833	196	11,029	.6
Ports:				
Western gulf	196	709	905	.1
Lake Charles, La.; New Orleans, La.; and Gulfport, Miss.	4,706	---	4,706	.3
Pacific coast	12,215	723,382	735,597	43.2
Other[5]	7,657	2,008	9,665	.6
Total shipments	775,321	925,629	1,700,950	100.0
	Percent	Percent	Percent	
Distribution	45.6	54.4	100.0	

[1]Less than 0.05 percent.

[2]Nonconsuming establishments from which cotton is reshipped to final destinations.

[3]Includes shipments to Arkansas, 27,144; Louisiana, 3,656; Mississippi, 11,419; Tennessee 53,656; and Texas, 34,502.

[4]Includes shipments to Louisiana, 2; Mississippi, 14; Tennessee, 20,409; and Texas, 1,934.

[5]Minor destinations and destinations designated as "other" by shipping warehouses.

Table 18. New Mexico: Shipments of cotton from warehouses, by destination and mode of transportation, 1975-76 season

Destination	Rail	Truck	Rail and truck	
	Bales	Bales	Bales	Percent
Southeastern mill area:				
Alabama	2,247	820	3,067	2.3
Georgia	4,944	1,629	6,573	5.0
North Carolina	16,979	1,884	18,863	14.4
South Carolina	35,490	1,683	37,173	28.5
Virginia	950	84	1,034	.8
Total mill area	60,610	6,100	66,710	51.0
New England, Eastern, and Mid-western States	---	---	---	---
Interior concentration points[1]	[2]28,677	[3]7,753	36,430	27.8
Canada	---	---	---	---
Ports:				
Western gulf	5,076	11,259	16,335	12.5
Pacific coast	---	7,229	7,229	5.5
Other[4]	---	4,216	4,216	3.2
Total shipments	94,363	36,557	130,920	100.0
	Percent	Percent	Percent	
Distribution	72.1	27.9	100.0	

[1]Nonconsuming establishments from which cotton is reshipped to final destinations.
[2]Includes shipments to Arkansas, 5; Mississippi, 7,495; Missouri, 400; Tennessee, 5,657; and Texas, 15,120.
[3]Includes shipments to Tennessee, 63; and Texas 7,690.
[4]Minor destinations and destinations desginated as "other" by shipping warehouses.

Table 19. Shipments of cotton from producing States and regions, and U.S. totals, by mode o transportation, 1975-76 season

Origin	Total bales	Bales shipped by—		Percentage shipped by—	
		Rail	Truck	Rail	Truck
	Bales	Bales	Bales	Percent	Percen
Southeastern Region:					
Alabama	174,450	64,469	109,981	37.0	63.0
Georgia	179,482	40,772	138,710	22.7	77.3
North Carolina	146,653	37,210	109,443	25.4	74.6
South Carolina	327,556	162,754	164,802	49.7	50.3
Total	828,141	305,205	522,936	36.8	63.2
South Central Region:					
Arkansas	676,017	369,471	306,546	54.7	45.3
Louisiana	315,614	146,919	168,695	46.6	53.4
Mississippi	1,127,375	432,783	694,592	38.4	61.6
Missouri	235,709	105,187	130,522	44.6	55.4
Tennessee	454,670	249,645	205,025	54.9	45.1
Total	2,809,385	1,304,005	1,505,380	46.4	53.6
Southwestern Region:					
Oklahoma	201,458	147,232	54,226	73.1	26.9
Texas	3,214,672	2,235,449	979,223	69.5	30.5
Total	3,416,130	2,382,681	1,033,449	69.7	30.3
Western Region:					
Arizona	820,387	239,844	580,543	29.2	70.8
California	1,700,950	775,321	925,629	45.6	54.4
New Mexico	130,920	94,363	36,557	72.1	27.9
Total	2,652,257	1,109,528	1,542,729	41.8	58.2
U.S. total	9,705,913	5,101,419	4,604,494	52.6	47.4

Table 20. Total cotton flow: Percentages producing States and regions contributed to total movements, by origin and mode of transportation, 1975-1976 season

Origin	Rail	Truck
	-----Percent-----	
Southeastern Region:		
Alabama	1.3	2.4
Georgia	.8	3.0
North Carolina ...	.7	2.4
South Carolina ...	3.2	3.6
South Central Region:		
Arkansas	7.2	6.6
Louisiana	2.9	3.7
Mississippi	8.5	15.1
Missouri	2.1	2.8
Tennessee	4.9	4.4
Southwestern Region:		
Oklahoma	2.9	1.2
Texas	43.8	21.3
Western Region:		
Arizona	4.7	12.6
California	15.2	20.1
New Mexico	1.8	.8
Total	100.0	100.0

Table 21. Primary flow of cotton from producing States and regions, and U.S. total, 1975-76 season

Origin	Southeastern mill area intrastate[1]		Interior concentration points[2]		South-eastern mill area		Ports		New England, Eastern, and Midwestern States		Canada		Other[3]		Total for each origin	
	Bales	Pct.	Bales	Pct.	Bales	Pct.	Bales	Pct.	Bales	Pct.	Bales	Pct.	Bales	Pct.	Bales	Pct.
Southeastern Region:																
Alabama	57,539	33.0	5,751	3.3	109,206	62.6	425	[4]	---	---	---	---	1,529	.9	174,450	100.0
Georgia	84,804	47.2	536	.3	84,667	47.2	5,456	3.0	640	.4	---	---	3,379	1.9	179,482	100.0
North Carolina	128,171	87.4	---	---	14,673	10.0	---	---	---	---	---	---	3,809	2.6	146,653	100.0
South Carolina	175,604	53.7	5,630	1.7	135,134	41.3	5,087	1.5	2,045	.6	---	---	4,056	1.2	327,556	100.0
Total	446,118	53.9	11,917	1.4	343,680	41.5	10,968	1.3	2,685	.3	---	---	12,773	1.6	828,141	100.0
South Central Region:																
Arkansas	---	---	94,383	13.9	500,398	74.1	39,513	5.9	125	[4]	36,077	5.3	5,521	.8	676,017	100.0
Louisiana	---	---	34,874	11.0	247,833	78.6	28,641	9.1	235	.1	3,612	1.1	419	.1	315,614	100.0
Mississippi	---	---	102,260	9.2	866,062	76.9	114,858	10.2	3,776	.3	8,110	.7	30,309	2.7	1,127,375	100.0
Missouri	---	---	33,936	14.4	187,035	79.4	9,048	3.8	---	---	1,680	.7	4,010	1.7	235,709	100.0
Tennessee	---	---	35,708	7.8	368,835	81.2	29,313	6.4	1,853	.4	14,618	3.2	4,343	1.0	454,670	100.0
Total	---	---	303,161	10.8	2,170,163	77.2	221,373	7.9	5,989	.2	64,097	2.3	44,602	1.6	2,809,385	100.0
Southwestern Region:																
Oklahoma	---	---	8,318	4.1	93,788	46.6	97,313	48.3	396	.2	1,643	.8	---	---	201,458	100.0
Texas	---	---	221,015	6.7	1,029,154	32.1	1,877,919	58.3	18,511	.6	30,607	.9	37,466	1.2	3,214,672	100.0
Total			229,333	6.7	1,122,942	32.9	1,975,232	57.8	18,907	.6	32,250	.9	37,466	1.1	3,416,130	100.0
Western Region:																
Arizona	---	---	24,300	3.0	258,899	31.5	510,506	62.2	457	.1	8,849	1.1	17,376	2.1	820,387	100.0
California	---	---	163,015	9.6	775,953	45.6	741,208	43.6	80	[4]	11,029	.6	9,665	.6	1,700,950	100.0
New Mexico	---	---	36,430	27.8	66,710	51.0	23,564	18.0	---	---	---	---	4,216	3.2	130,920	100.0
Total	---	---	223,745	8.4	1,101,562	41.6	1,275,278	48.1	537	[4]	19,878	.7	31,257	1.2	2,652,257	100.0
U. S. total	446,118	4.6	768,156	7.9	4,738,347	48.8	3,482,851	35.9	28,118	.3	116,225	1.2	126,098	1.3	9,705,913	100.0

[1]**Excluding ports.**
[2]**Nonconsuming establishments from which cotton is reshipped to final destinations.**
[3]**Minor destinations and destinations designated as "other" by shipping warehouse.**
[4]**Less than 0.05 per cent.**

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Harvesting 40-Inch Row Cotton with an Experimental Cotton Combine and a Spindle Picker

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Harvesting 40-Inch Row Cotton with an Experimental Cotton Combine and a Spindle Picker

Cotton in the humid regions of te Cotton Belt is harvested almost etirely with spindle pickers. cceptance of spindle pickers in te Mississippi Delta has been lrgely due to their ability to larvest cotton under a wide range d plant and weather conditions. he spindle picker can harvest a umber of varieties with bolls of arying size, shape, and storm sistant characteristics (10). owever, they are expensive and omplicated machines with latively low total seasonal use bout 200 hours are available for eld work in the Mississippi Delta uring a given harvest season) and gh maintenance costs (8).

Several attempts, with varying degrees of success, have been made to introduce new types of harvesters into the humid region of the Cotton Belt. Stripper harvesters, using stripper rolls or finger-type headers, have met with limited acceptance in the Mississippi Delta. Their use has been limited in tall, rank cotton and because of hazards of once-over harvesting occasioned by uncertain weather (4, 7, 11).

An experimental "cotton combine" was introduced in 1969 (6) and demonstrated across the Cotton Belt in 1970 (3) by the Ben Pearson Mfg. Co., Pine Bluff, Arkansas. This combine uses a 13-foot wide header to cut stalks and two tandemly-operated horizontally-oriented spindle picking units to remove seed cotton from stalks as they are conveyed through the harvester (Figure 1).[1] A rear-mounted stalk shredder chops the residue and distributes it over the field.

The objectives of this study were: (1) to compare the performance of the cotton combine with that of a spindle picker used to harvest rank, high-yielding cotton grown in solid 40-inch rows and (2) to study the influence of this harvesting method on cotton quality and net returns.

Materials and Methods

Bosket fine sandy loam soil was elected for this four-year study 1971-74) because of its previous istory of producing relatively tall nd high-yielding cotton. Four arvesting treatments were rranged in a randomized complete lock design with four replications. lots were 20 ft wide and 100 ft ng. The initial treatment of each lot was repeated in each of the llowing three years. All plots ere treated alike each year, except or differences in harvesting reatments.

Seedbeds were prepared by subiling in fall or spring and hipping wice over the old stubble in spring, ollowing the guidelines of reduced illage outlined by Spurgeon *et al* (9). Nitrogen, as a 32 percent urea-ammonium nitrate solution, was applied at a rate of 80 lb N/A after the first hipping. The seedbed was conditioned with a "Do-all" seedbed conditioner ahead of the planter.

All treatments were planted with a six-row Burch planter equipped with 5/8-inch wide experimental sword openers. Twenty pounds per acre of 'Stoneville 213' acid delinted seed were planted on April 21, April 27, May 8, and April 26 in 1971, 1972, 1973 and 1974, respectively. Diuron was applied in a 20-inch band each year for preemergence weed control. Conventional cultivations and postemergence weed control practices were used on all plots. Insecticides were applied by air as needed. The tests were defoliated at maturity on October 1, October 3, September 25, and September 30 in 1971, 1972, 1973 and 1974, respectively.

Harvest treatments were: (1) twice-over with a conventional spindle picker, (2) once-over with a conventional spindle picker, (3) once-over with a conventional spindle picker and scrapped with a cotton combine, and (4) once-over with a cotton combine.

The solid 40-inch row spacing produced large plants that tended to crowd the sickle area of the combine when traveling in the row direction. Because of the large

[1] *Improvements in later models of the prototype harvester are not reflected by data in this report.*

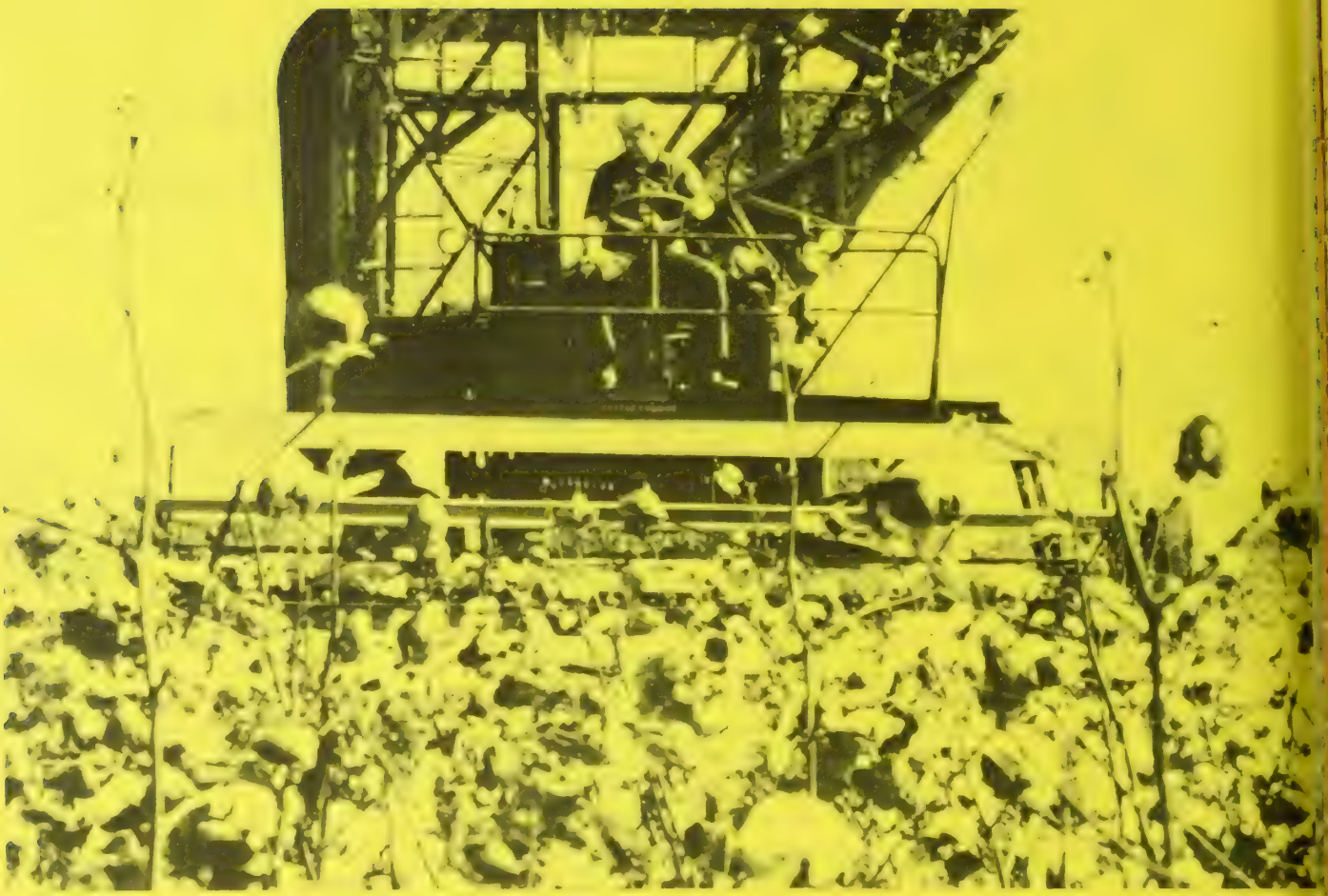

Figure 1. Experimental cotton combine harvesting cotton at the MAFES Delta Branch.

volume of plant material, reduction in ground speed of the combine was necessary when plants were taller than four feet and yield was as high as two or more bales per acre.

The first spindle picking in 1971 was on October 8. Second spindle picking, once-over spindle picking and harvest with the cotton combine were on November 4.

The first spindle picking in 1972 was on October 10. Second spindle picking and once-over spindle picking were on October 25. Harvest with the cotton combine was scheduled for October 25, but was interrupted by heavy rains until November 3.

The combine was modified in 1973 by placing a shield on the top side of the stalk guards at the rear of the picking unit, to help remove larger stalks from the spindles and to prevent them from reentering the picking unit. The first spindle picking in 1973 was on October 15. Second spindle picking, once-over spindle picking and harvest with the cotton combine were on October 30.

The first spindle picking in 1974 was on October 14. Second spindle picking, once-over spindle picking, and harvest with the cotton combine were on November 12.

Seed cotton samples were collected from each plot for all first pickings and once-over harvests. Seed cotton samples were collected from all second spindle pickings and combine scrappings and blended into a composite sample for each treatment.

All samples were ginned on a 20-saw gin with a standard equipment sequence (1).[2] Large sticks in combine-harvested samples wer removed by hand before ginning

Lint samples were graded b personnel of the Cotton Division o the Agricultural Marketing Se vice, USDA, Greenwood, Mississi pi.

Costs and returns were based o prices of production inputs an cotton during the test period and d not necessarily reflect curren market conditions. Equipmen costs and methods of calculatio have been reported for equipmen currently in use in the Delta are (5). Supplementary calculations o operating costs, repairs, annua hours of use, length of life, an performance rates of the cotto combine were made from informa tion obtained from field obser vations on a cooperating farm (12)

[2]*Cotton was ginned at the U. S. Cotton Ginning Research Laboratory at Stoneville, Mississippi.*

Results and Discussion

Yield, gin turnout, lint grade and net returns in 1971 did not differ significantly by method of harvest (Table 1). Staple lengths were significantly longer for spindle picking followed by combine scrapping than for either once-over harvests. Staple lengths also were significantly longer for plots harvested twice-over with the spindle picker than for those harvested once-over with the spindle picker. Lowest total costs were obtained with once-over combining (Table 1). Total returns from spindle picking were significantly higher than for the once-over harvest with the cotton combine.

The delay in once-over harvest with the cotton combine in 1972 caused significant reductions in lint yield, gin turnout, grade and staple length---resulting in significantly lower total and net returns than from other harvest methods (Table 2). The only significant difference in once-and twice-over spindle picking was in total costs. There were no significant differences in the two methods of twice-over harvesting.

Seed cotton yields in 1973 were higher for once-over picking followed by combine scrapping than for either once-over method of harvest (Table 3). Seed cotton yields also were higher for twice-over spindle picking than for once-over spindle picking. A significantly lower lint yield was harvested by once-over combining than by the other harvesting methods. Gin turnout was higher when only the spindle picker was used. Lint grade for once-over spindle picking was higher than for all other treatments. Both twice-over harvest methods produced higher lint grades than once-over combining.

Total costs were lower for once-over harvesting than for twice-over harvesting. Total cost was significantly lower for once-over combining than for once-over spindle picking. Combine harvesting resulted in significantly lower total and net returns than the other three harvest methods, because of lower lint yield and composite grade. More regrowth than usual occurred in 1973, reducing grades from combine harvesting more than those from spindle picking.

Seed cotton yield for once-over spindle picking was lower than for other harvest methods in 1974 and lint yield from once-over spindle picking was significantly lower than from twice-over spindle picking or once-over combine harvesting (Table 4). Gin turnout was significantly higher from once-and twice-over spindle picking than from once-over combining or spindle picking followed by scrapping with the combine. Excellent defoliation and very little regrowth occurred in 1974 and lint grades were significantly lower only when the combine was used for scrapping. The combine harvester picked up considerably more trash when used for scrap-

Table 1. Yield, Gin turnout, grade, staple length, costs and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, 1971.

Harvest Method	Yield		Gin	Composite	Staple	Total	Total	Net
	Seed cotton	Lint	turnout	grade	length	costs	returns	returns
	--lbs./Acre--		percent	index	32nd inch	-----dollars/Acre-----		
Spindle Pick (10/8)	2592	862	33.0	94.0[1]	34.8			
Spindle Pick (11/4)	784	273	34.8	97.0	35.0			
Total	3377	1135	33.6	94.7	34.9 ab[2]	217.87 c	391.91 a[3]	174.05
Spindle Pick (11/4)	3227	1130	35.0	99.5	34.0 c	206.32 b	391.48 a	185.16
Spindle Pick (10/8)	2533	863	34.0	95.6	35.0			
Combine (11/4)	732	237	32.4	94.0	35.0			
Total	3266	1100	33.7	95.3	35.0 a	218.34 c	381.24 ab	162.89
Combine (11/4)	3142	1041	33.2	94.8	34.3 bc	199.59 a	357.71 b	158.12

[1]Composite grade index for white cotton: Middling = 100; Strict low middling plus = 97; and Strict low middling = 94.

[2]Values in a column followed by the same letter are not significantly different ($P < .05$) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season.

Table 2. Yield, gin turnout, grade, staple length, costs and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, 1972.

Harvest Method	Yield: Seed cotton	Yield: Lint	Gin turnout	Composite grade	Staple length	Total costs	Total returns	Net returns
	--lbs./Acre--		percent	index	32nd inch	-----dollars/Acre-----		
Spindle Pick (10/10)	3251	1142	35.1	93.0[2]	35.0			
Spindle Pick (10/25)	275	92	33.6	85.0	35.0			
Total	3526	1234 a[1]	35.0 a	92.4 a	35.0 a	224.85 c	378.78 a[3]	153.93 a
Spindle Pick (10/25)	3729	1247 a	33.4 a	93.0 a	35.0 a	214.03 b	386.36 a	172.33 a
Spindle Pick (10/10)	3373	1163	34.5	93.0	34.8			
Combine (11/3)	313	89	28.5	70.0	34.0			
Total	3686	1252 a	34.0 a	92.2 a	34.7 a	227.55 c	383.04 a	155.49 a
Combine (11/3)	3422	1013 b	29.6 b	82.8 b	34.0 b	201.21 a	288.40 b	87.19 b

[1]Values in a column followed by the same letter are not significantly different (P<.05) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[2]Composite grade index for white cotton: Strict low middling = 94; Low middling = 85; Strict good ordinary = 76; and Good ordinary = 70.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season.

Table 3. Yield, gin turnout, grade, staple length, cost and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, 1973.

Harvest Method	Yield: Seed cotton	Yield: Lint	Gin turnout	Composite grade	Staple length	Total costs	Total returns	Net returns
	--lbs./Acre--		percent	index	32nd inch	------dollars/Acre-----		
Spindle Pick (10/15)	3257	1071	32.9	93.0[4]	35.0			
Spindle Pick (10/30)	364	130	35.7	85.0	35.0			
Total	3621 ab[3]	1201 a	33.2 a	92.2 b	35.0	189.68 c	598.41 a[5]	408.74 a
Spindle Pick (10/30)	3307 c	1179 a	35.7 a	94.0 a	35.0	177.40 b	588.09 a	410.69 a
Spindle Pick (10/15)	3346	1079	32.3	94.0	35.0			
Combine (10/30)	359	110	30.6	70.0	34.0			
Total	3704 a	1189 a	32.1 b	91.8 b	34.9	191.14 c	598.46 a	407.31 a
Combine (10/30)	3488 bc	1107 b	31.8 b	85.0 c	35.0	171.39 a	546.15 b	374.76 b

[1]Values in a column followed by the same letter are not significantly different (P<.05) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[2]Composite grade index for white cotton: Strict low middling = 94; Low middling = 85; Strict good ordinary = 76; and Good ordinary = 70.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season. Adjustments were made to reflect the high degree of forward contracting that occurred. Average price for SLM, 1-3/32 inch cotton was assumed to be 41.77 cents per pound.

ping than when used for once-over harvesting.

Total costs were significantly different for each method of harvesting and were lowest f once-over harvesting with the spi

le picker. The difference in total osts for once-over spindle picking nd once-over combining can be ttributed to ginning costs, which ere affected by differences in quantity of cotton harvested.

Total and net returns were higher for the combine harvester and twice-over spindle picking treatments than for once-over spindle picking treatments (Table 4). Net returns for the once-over combine harvest were also higher than for the treatment using the combine for scrapping.

Table 4. Yield, gin turnout, grade, staple length, costs and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, 1974.

Harvest Method	Yield		Gin	Composite	Staple	Total	Total	Net
	Seed cotton	Lint	turnout	grade	length	costs	returns	returns
	--lbs./Acre--		percent	index	32nd inch	-----dollars/Acre-----		
Spindle Pick (10/14)	2406	753	31.3	92.8[2]	35.0			
Spindle Pick (11/12)	633	203	32.1	94.0	35.0			
Total	3039 a[1]	956 a	31.5 a	93.0 a	35.0	229.48 d	573.49 a[3]	344.01 ab
Spindle Pick (11/12)	2711 b	861 b	31.8 a	94.0 a	35.0	192.24 a	520.20 b	327.96 c
Spindle Pick (10/14)	2333	718	30.8	91.5	35.0			
Combine (11/12)	778	207	26.6	85.0	35.0			
Total	3111 a	925 ab	29.7 b	90.1 b	35.0	222.17 c	558.35 ab	336.18 b
Combine (11/12)	3155 a	951 a	30.1 b	94.0 a	35.0	202.73 b	577.48 a	374.75 a

[1]Total values in a column followed by the same letter are not significantly different (P < .05) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[2]Composite grade index for white cotton: Strict low middling = 94; and Low middling = 85.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season.

Four-Year Averages

Lint yields, gin turnout, grade, staple length, total costs, total returns and net returns were significantly lower for once-over combining than for the other harvesting methods (Table 5). Differences in seed cotton yield, lint grade and total costs were significantly different for once-over and twice-over spindle picking. Similar results were obtained by Barker, *et al,* in a three-year test at Stoneville (2). Differences in net returns were not significantly different for twice-over spindle picking, once-over spindle picking and once-over spindle picking followed by combine scrapping.

Three-Year Averages

Eliminating data for 1972 permitted comparing results of combine-harvesting with results of once-over spindle picking on the same date. Averaging results (Table 6) for 1971, 1973, and 1974 revealed the following:

Seed cotton yields for the two methods of twice-over harvest were significantly higher than for either method of once-over harvest. Seed cotton yield was significantly higher for once-over combining than for once-over spindle picking.

Differences in lint yield were not significant for once-over spindle picking and once-over combining or for the two twice-over methods of harvest.

Differences in total costs and total returns were not significantly different for once-over combining and once-over spindle picking. Net returns did not differ significantly by harvesting method.

Table 5. Yield, gin turnout, grade, staple length, cost and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, 1971-74 average.

Harvest Method	Yield: Seed cotton	Yield: Lint	Gin turnout	Composite grade	Staple length	Total costs	Total returns	Net returns
	--lbs./Acre--		percent	index	32nd inch	-----dollars/Acre-----		
First Spindle Pick	2877	957	33.3	93.2[2]	35.0			
Second Spindle Pick	514	175	34.1	90.3	35.0			
Total	3390 a[1]	1131 a	33.3 ab	93.0 b	35.0 a	215.47 c	485.65 a[3]	270.18 a
Once-over Spindle Pick	3243 b	1104 a	34.0 a	95.1 a	34.8 a	197.50 b	471.53 a	274.04 a
First Pick, Spindle	2896	956	33.0	93.5	35.0			
Second Pick, Combine	546	161	29.5	79.8	34.5			
Total	3442 a	1116 a	32.4 b	92.3 b	34.9 a	214.80 c	480.27 a	265.47 a
Once-over, combine	3302 b	1028 b	31.2 c	89.1 c	34.6 b	193.73 a	442.43 b	248.70 b

[1]Values in a column followed by the same letter are not significantly different ($P < .05$) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[2]Composite grade index for white cotton: Strict low middling plus = 97; Strict low middling = 94; Low middling = 85; and Strict good ordinary = 76.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season.

Table 6. Yield, gin turnout, grade, staple length, cost and returns, 'Stoneville 213' cotton harvested by different methods, MAFES Delta Branch, averages of 1971, 1973 and 1974 tests.

Harvest Method	Yield: Seed cotton	Yield: Lint	Gin turnout	Composite grade	Staple length	Total costs	Total returns	Net returns
	--lbs./Acre--		percent	index	32nd inch	-----dollars/Acre-----		
First Spindle Pick	2752	895	32.5	93.3[2]	34.9			
Second Spindle Pick	594	202	34.0	92.0	35.0			
Total	3346 a[1]	1097 a	32.8 b	93.0 b	34.9	212.09 b	521.27 a[3]	308.93
Once-over Spindle Pick	3082 c	1057 ab	34.3 a	95.8 a	34.7	191.99 a	499.92 b	307.93
First Pick, Spindle	2737	887	32.4	93.7	35.0			
Second Pick, Combine	623	185	29.7	83.0	34.7			
Total	3360 a	1072 ab	31.9 b	91.9 b	34.9	210.55 b	512.68 ab	302.13
Once-over, Combine	3262 b	1033 b	31.7 b	91.3 b	34.8	191.24 a	493.78 b	302.54

[1]Total values in a column followed by the same letter are not significantly different ($P < .05$) as determined by Duncan's New Multiple Range Test. Only treatment totals are analyzed.

[2]Composite grade index for white cotton: Strict low middling plus = 97; Strict low middling = 94; Low middling = 85; and Strict good ordinary = 76.

[3]Based on grade and staple length, USDA Classing Office, Greenwood, Mississippi, and upon prevailing prices at Greenwood for a given grade and staple length during the harvest season.

Conclusions

Results from the 1971, 1973 and 1974 trials indicate that cotton grown in solid 40-inch rows can be harvested with the cotton combine. However, results in 1972 point to the greater risk of total dependence on a once-over harvest system because of the probability of weather-caused delay of harvest. Even with the delay in scrapping with the combine in 1972, spindle picking followed by combining was as satisfactory as twice-over spindle picking except for difficulty in ginning.

Once-over combine-harvested cotton contained about eight percent more trash than spindle-picked cotton and gins equipped for ginning spindle-picked cotton had some difficulty in removing it---particularly the higher stick content. Improvements in the mechanical reliability, field performance and harvesting efficiency of later models of the prototype combine may have a sizable impact upon its relative merits as a cotton harvester.

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Relationships of Row Spacings, Nitrogen and Seeding Rates for Cotton Production in the Mississippi Delta

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Cotton traditionally has been grown in the Mississippi Delta on rows spaced from 38 to 42 inches apart. These row spacings originated when draft animals were used for pulling tillage equipment and remained in vogue after combustion engines were introduced to power farm tools, primarily because only limited quantitative evaluation of alternative row spacings had been accomplished. Some research at the MAFES Delta Branch in the 1950's evaluated cotton yields on 20-, 40-, 60- and 80-inch rows (13), but the predominance of traditional row widths continued.

Bridge *et al* (7) reported that three commercial cotton varieties tested for three years (1971-73) averaged nine percent more lint on 20-inch rows and six percent more than 15-inch rows than on 40-inch rows. Hoskinson *et al* (14) reported that 10- and 20-inch rows yielded about 10 percent more lint than standard 40-inch rows in Tennessee tests. Parish *et al* (17) found that narrow-row cotton yields averaged about five percent more than conventional 40-inch rows in a three-year test in Arkansas. Grissom and Spurgeon (13) reported average yields for 40-inch rows about five percent above 20-inch rows in a four-year test in Mississippi.

Narrow-row cotton has been grown in tests on the Texas High Plains since 1954 (15). Early development of self-propelled finger-type strippers was reported by Tupper (2, 11, 21) and Kirk (15). These developments have led to increased efforts by researchers across the Cotton Belt to develop narrow-row cotton (8, 18, 19, 23 and 25).

The Texas High Plains area has been more successful than other areas in stripping cotton from both narrow-row and conventional row spacings, due to limited plant size and lower relative humidity at harvest time (16). Strippers have not been as successful in research evaluations in the Delta of Mississippi (9). Stripper harvesters using brushes or stripper rolls to remove bolls from cotton have met with limited acceptance in the southeast and Delta. Their use in the area is limited because of once-over harvest, tall cotton, and the high moisture generally prevailing throughout the area (14, 22).

Acceptance of spindle pickers in the more humid and irrigated areas has resulted from their ability to harvest cotton under a wide range of plant and weather conditions. The spindle picker can harvest a number of different varieties, with bolls that vary in size, shape, and storm resistance characteristics (20). However, they are expensive and complicated machines with a relatively low total seasonal capacity (about 200 hours are available for field work in the Delta area of Mississippi during a given harvest season) and high maintenance costs.

An experimental "cotton combine" was introduced in 1969 (12) and demonstrated across the Cotton Belt in 1970 (3) by the Ben Pearson Mfg. Co., Pine Bluff, Arkansas. This cotton combine uses a 13-foot wide combine header to cut the stalks and two tandemly-operated, horizontally-oriented spindle picking units to remove seed cotton from stalks as they are conveyed through the harvester (3). A rear-mounted stalk shredder chops the residue and distributes it over the field. The potential advantages of this machine have increased the technical feasibility of producing narrow-row cotton in the Mississippi Delta (4, 7, 16, and 17).

This study at the MAFES Delta Branch in 1970-73 was designed to develop a cultural system that would be compatible with the cotton combine.

Materials and Methods

Different row spacings were evaluated, using varying plant populations and nitrogen levels over a four-year period (1970-73). Row spacings used in 1970 were 10, 20, and 40 inches. Row spacings in the 1971-73 tests were 15, 30, and 40 inches. Seeding rates each year were 15, 30 or 45 pounds per acre of acid delinted 'Stoneville 213' seed and a 32 percent urea-ammonium nitrate solution was applied at either 40, 80, or 120 pounds of nitrogen per acre.

A split-plot factorial design with four replications was used each year. Nitrogen rates were main plots. Row spacings and seeding rates were subplots completely randomized within the main plots. The 1970 plot design was maintained in the next three years. The soil was a silt loam and all plots were 20 feet wide and 95 feet long.

The test area was land-formed in the spring of 1970 when soil was relatively wet. Seedbed preparation consisted of two chisel operations, one disking and two harrowing operations before planting, to provide a reasonably good seedbed for flat planting. The 40-inch rows were planted on May 6 with a Case double disk-opener planter. An International Number 100 press drill was used to plant the 10- and 20-inch rows on May 7.

The seedbed was very cloddy in 1970 as a result of land-forming when the soil was wet. Dry soil after planting did not permit full activation of the preemergence herbicide. Erratic seedling emergence resulted in plants of unequal size that required delaying post-emergence application about two weeks.[1]

The field was subsoiled at a 90° angle to row direction in fall 1970. The 40-inch rows were planted in 1971 with a Burch planter equipped with experimental "Foose" type openers. The 30-inch rows in 1971 were planted with the Burch planter set on 30-inch centers. The 15-inch rows were planted with the same planter by doubling back in the middles.[2]

Planting systems for the different row spacings in 1972 and 1973 were:

40-inch rows---planted with a Burch planter equipped with experimental "Foose" type openers.

30-inch rows---planted with eight John Deere 71-B flexi-planter units spaced 30-inches apart on a 2¼" x 2¼" toolbar.[3]

15-inch rows---planted with 15 John Deere 71-B flexi-planter units spaced 15 inches apart on the toolbar, with 20-inch spacings directly behind the tractor tires (front cover).[3]

Fluometuron was broadcast preemergence on the 10- and 20-inch rows in 1970. Trifluralin was incorporated preplant with a disk at ½ lb/A on the 15-inch rows in 1972 and 1973 and fluometuron was broadcast preemergence on the 15-inch rows in 1971, 1972 and 1973. Trifluralin was incorporated preplant with a disk at ½ lb/A on the 30-inch rows in 1973 and fluometuron was applied preemergence at 1 lb/A on a 20-inch band on the 30-inch rows in 1971, 1972 and 1973. Fluometuron was applied preemergence at 1 lb/A on a 20-inch band on the 40-inch rows all four years.

All plots were hoed once each year. All post-directed spray applications were ¼ lb. of diuron plus one pint of MSMA per acre.

The 10-inch rows were not cultivated and no post-dir ed spray was applied. The 20- ch rows were cultivated three t es and received a single broac st post-directed spray applica n. Row spacings of 20 inches res ed in reduced cultivator perform ce and cultivation was termin ed earlier than for 40-inch rows.

The 40-inch rows were cultiv ed from four to six times each yea d each treatment received tw to three post-directed sp y applications on a 20-inch b d. The 30-inch rows were cultiv ed five times each year and rec ed one to two post-directed s y applications on a 20-inch b d. Row spacings of 30 inches res ed in reduced cultivator perform ce and cultivation was termin ed earlier than for 40-inch rows.

The 15-inch rows were ot cultivated in any year of the t. They received one broadcast ost-directed spray in 1972; two in 71 and 1973. The narrow row dire d-spray applicator (back cover) as patterned after one develope by Brashears *et al* (6).

Insecticides were applied b ir as needed throughout the gro g season and defoliants were ap d at maturity. All plots re harvested with the experim al cotton combine (back cover). he plots fertilized with 80 and 1 lb N/A were harvested about ne week and two weeks later, res c-tively, than the 40 lb N/A p ts because of later maturity resul g from the higher nitrogen rate .

Seed cotton samples re collected from each plot. L ge sticks were removed by han so samples could be run through he small tower drier in the micro n. The samples were ginned on a 0-saw gin with a standard equipm nt

[1] *The 10- and 20-inch row spacings were discontinued at the end of the 1970 season.*

[2] *A new system was developed for planting the 15-inch rows in 1972 and 1973.*

[3] *An irrigation corrugator was attached to the toolbar directly behind the tractor tires to cut a "V" a h about four inches wide and four inches deep for drainage in the early part of the season.*

equence.[4]

Costs and returns were based on input - output prices in the test period and do not necessarily reflect current market conditions.

Equipment costs and methods of calculation have been reported for equipment currently in use in the Delta area (10). Supplementary calculations were made for the costs of owning and operating a cotton combine. Estimated performance rates of the cotton combine were based on limited field observations on a cooperating farm (24).

Results and Discussion

The 10-inch rows yielded significantly more lint than the 40-inch rows in 1970. However, the press drill was not a satisfactory method of planting because of difficulty in obtaining a uniform planting depth. Also, directed postemergence spraying was not possible without running over cotton with the tractor wheels.

The Burch planter used for planting 15-inch rows in 1971 was totally inadequate. Yields of plots planted with the Burch planter set on 30-inch row spacing to obtain a 5-inch row pattern by doubling back in the middles were lower than yields with other row spacings, because of soil compaction and wilting of plants during dry weather.

The John Deere 71-B flexi-planter was considered an adequate system for planting the 15-inch row plots in 1972 and 1973. Planting depth control was improved, drainage of excess water after planting was enhanced and directed postemergence herbicide application was accomplished with minimum plant damage.

Wilting was more severe on all plots in 1970 because of soil compaction from land-forming early in the spring and the inability to subsoil before planting. Cotton in the 10- and 20-inch rows matured earlier than in the 40-inch rows. The 10-, 20- and 40-inch rows averaged 57, 56 and 38 percent open bolls, respectively, on September 25, 1970. Cotton in the 15-inch rows in 1971-73 displayed drought symptoms earlier than plots with 30- or 40-inch rows.

Analysis of variance revealed no significant third order interactions between variables (nitrogen rate x row spacing x seed rate) in the 1972 and 1973 tests (Tables 1 and 5). Second order interactions were: Lint yield was significantly higher for 30-inch rows with 120 lb N/A than for 15-inch rows with 120 lb N/A, 15- and 40-inch rows with 80 lb N/A and all three row spacings with 40 lb N/A. The 80 and 120 lb N/A treatments produced significantly more lint per acre than the 40 lb N/A treatments when averaged over all three row spacings and seeding rates (Table 2). Yields of plots receiving 40 lb N/A were significantly higher for 40- and 30-inch rows than for 15-inch rows (Table 1). Increasing nitrogen from 40 to 80 lb/A increased lint yields 143, 192, and 245 pounds per acre for 40-, 30-, and 15-inch rows, respectively.

Yields of plots seeded at different rates did not differ significantly for different row spacings or nitrogen rates (Table 2). However, the 1972-1973 average seed cotton yield was lower for the 15-pound per acre rate (data not reported in Tables).

Plant populations at harvest were highest for 15-inch rows in 1972 and 40-inch rows in 1973 (Table 3). Significantly higher plant populations were recorded for the 40 lb N/A treatments than in the 120 lb N/A treatments averaged over the two-year period.

Hoe labor requirements tended to be higher for low seeding and nitrogen rates, especially when they occurred together. Weed control apparently was enhanced by more shade pressure.

Lint percentage was not significantly affected by row spacing or nitrogen rate but was higher for the 15 lb/A seeding rate (Table 4).

Combine-harvested cotton samples were of lower grade due to more bark content than is generally experienced with the spindle picker. Higher nitrogen and seeding rates reduced lint grades of the combine-harvested samples. Row spacing had no significant influence on lint grades. Staple lengths were not significantly affected by nitrogen rates. The 40-inch rows produced cotton of shorter staple length than that from 30-inch rows in 1973. Staple length of cotton from the 30-pound seeding rate was shorter than that from the 15-pound rate in 1973.

Hand-removed sticks and stems harvested by the cotton combine were lowest for 40-inch rows in 1972, highest in 1973. Sticks harvested increased with increases in seeding rate in 1972. Lower nitrogen rates resulted in lower stick content of seed cotton.

Cotton shorter or taller than 2-1/2 to 3-1/2 feet was much more difficult to harvest with the cotton combine. The very short cotton in 15-inch rows with 40 lb N/A would not convey uniformly through the harvester because of low volume of stalks. The very tall cotton in 40-inch rows with 120 lb N/A would not convey uniformly through the harvester because of excessive volume of stalks.

Total cost of plots treated with 40 lb N/A was less than that for plots

[4]*Cotton was ginned at the U.S. Cotton Ginning Laboratory at Stoneville, Mississippi and lint samples were graded by personnel of the Cotton Division of the Agricultural Marketing Service, Greenwood, Mississippi.*

treated with 80 or 120 lb N/A (Table 6). Total cost of production for 15-inch rows was lower than for 40- or 30-inch rows. Each incremental increase in seeding rate resulted in sigificantly higher total costs.

Net returns were significantly lower from plots treated with 40 lb N/A and were also lower from 15-inch rows. The reduction in net returns for 15-inch rows was due mainly to the very poor performance at 40 lb N/A. Returns to management tended to be gre for 30-inch rows at 80 and 12 N/A than for either 40- or 15- rows (Table 5). Seeding rates not influence returns to man ment significantly (Table 6).

Study Limitations

Results of this study reflect research using the experimental cotton combine (back cover). Later changes, revisions, and improvements in the prototype harvester may not be reflected by the data in this report.

Simultaneous aerial application of insecticides and defoliants to all plots may have prevented the proper cut-off time of applying insecticides and timing of defoliants for individual plots. Differences in maturity and economic benefits cannot be measured fully with plots of the size used in our tests.

The requirement for once-over harvest as the only means of harvesting narrow row cotton is a serious limitation, given the normal growing season for current cotton varieties and the days available for harvesting operations in most years (5).

Successful once-over harvest with the cotton combine in Mississippi Delta will dep upon, (a) the development o mechanically dependa harvester, (b) adapted varie with earlier maturity than th now available, and (c) a cultu system and/or variety that produce smaller stalks than generally produced with the c mercial varieties and cultu systems now used.

Conclusions

Planting 10-inch rows with the press drill is not satisfactory because of difficulty in obtaining a uniform planting depth and because directed postemergence spraying is not possible without running over cotton with tractor wheels.

Planting 15-inch rows with the Burch planter set on 30-inch row spacing to obtain a 15-inch row pattern by doubling back in the middle is not satisfactory.

The John Deere 71-B flexiplanter is satisfactory for planting 15-inch rows.

Results of the 1972 and 1973 trials with 15-, 30- and 40-inch rows suggest that

(1) lint and cottonseed yields are adversely affected by 15-inch rows and low nitrogen levels, especially by low nitrogen levels, and by either low or high seeding rates,

(2) fifteen-inch rows are more sensitive to drought and soil c paction than are 30- and 40-i rows,

(3) lint yields and net retu tend to be higher for 30-inch row rates of 80 and 120 lb N/A than 15- or 40-inch rows fertilized w these rates of nitrogen,

(4) very short and very tall cot is much more difficult to harv with the cotton combine than cotton 2½ to 3½ feet tall.

Table 1. Cotton: Yield, by nitrogen rate, row spacing and seeding rate, Stoneville, Mississippi, 1970-1973.*

Row spacing	Seeding rate	Year				1972-73[1]
		1970	1971	1972	1973	Average
inches	lb/A	----------Pound lint per acre----------				
		40 lb N per acre				
40	15	734	725	869	687	778
	30	704	732	883	721	802
	45	735	698	877	697	787
	Average	724	718	876	702	789 c
30[2]	15	739	770	872	742	807
	30	695	710	876	632	754
	45	689	731	849	676	763
	Average	708	737	866	683	775 c
15[3]	15	774	493	790	510	650
	30	716	534	810	634	722
	45	704	485	793	520	656
	Average	731	504	798	555	677 d
		80 lb N per acre				
40	15	751	893	1008	878	943
	30	754	895	995	863	929
	45	820	938	1007	843	925
	Average	775	909	1003	861	932 b
30[2]	15	818	871	1036	875	955
	30	784	892	1058	862	960
	45	793	865	1084	888	986
	Average	798	876	1059	875	967 ab
15[3]	15	823	635	1051	750	900
	30	849	709	984	839	912
	45	777	669	1049	860	954
	Average	816	671	1028	816	922 b
		120 lb N per acre				
40	15	759	967	971	886	929
	30	775	979	1026	934	980
	45	743	960	1021	946	984
	Average	759	969	1006	922	964 ab
30[2]	15	756	924	1054	903	978
	30	815	908	1047	960	1003
	45	799	951	1104	968	1036
	Average	790	928	1068	943	1006 a
15[3]	15	865	723	1045	847	946
	30	856	750	1069	894	982
	45	813	705	997	855	925
	Average	845	726	1037	865	951 b
Interaction		NS	NS	NS	NS	NS

*Means in the same column followed by a different letter differ significantly ($P < .05$) as determined by Duncan's New Multiple Range Test.

[1]1972 and 1973 were the only years treated alike.

[2]Row spacing was 20 inches in 1970.

[3]Row spacing was 10 inches in 1970; 15 inches in 1971---planted with a Burch planter set on 30-inch spacing to obtain a 15-inch row pattern by doubling back in the middle.

Table 2. Cotton: Yield by nitrogen rate and seeding rate, row spacing and seeding rate, and seeding rate. Stoneville, Mississippi, 1972 and 1973.*

Nitrogen rate	Seeding rate	Year		1972-73
		1972	1973	Average
lb/A	lb/A	-----Pounds lint per acre-----		
40	15	844	646	745
	30	856	662	759
	45	839	631	735
	Average	846 b	646 b	746 b
80	15	1032	834	933
	30	1012	855	934
	45	1047	863	955
	Average	1030 a	851 a	940 a
120	15	1023	879	951
	30	1048	929	989
	45	1040	923	982
	Average	1037 a	910 a	974 a
Interaction		NS	NS	NS
Row spacing	**Seeding rate**			
inches	lb/A			
40	15	949	817	883
	30	968	839	904
	45	968	829	899
	Average	962 b	828 a	895 a
30	15	987	840	914
	30	994	818	906
	45	1012	844	928
	Average	998 a	834 a	916 a
15	15	962	702	832
	30	955	789	872
	45	946	745	846
	Average	954 b	745 b	850 b
Interaction		NS	NS	NS
Seeding rate				
lb/A				
15 (Average all plots)		966	786	876
30 (Average all plots)		972	815	894
45 (Average all plots)		976	806	891

*Means in the same column followed by a different letter differ significantly ($P < .05$) as determined by Duncan's New Multiple Range Test.

Table 3. Cotton: Plant population and hoe labor requirement, by nitrogen rate, row spacing and seeding rate, Stoneville, Mississippi, 1972 and 1973.*

Treatment	Plant population			Hoe labor		
	1972	1973	1972-73 Average	1972	1973	1972-73 Average
Mean	----------No./A----------			----------hr/A----------		
Nitrogen rate-lb/A						
40	77,000 a	58,300	67,600 a	2.92 ab	1.72	2.32
80	68,700 b	64,200	66,400 ab	3.33 b	1.98	2.65
120	69,900 b	52,100	61,000 b	2.35 a	.90	1.63
Row spacing-inches						
40	53,700 c	66,800 a	60,300 b	1.50 a	1.08 a	1.29 a
30	73,700 b	54,600 b	64,200 b	4.53 c	1.33 a	2.93 b
15	88,100 a	53,200 b	70,700 a	2.57 b	2.18 b	2.38 b
Seeding rate-lb/A						
15	40,000 c	30,800 c	35,400 c	3.27	1.58	2.43
30	70,600 b	58,300 b	64,500 b	2.74	1.50	2.12
45	105,000 a	85,400 a	95,200 a	2.59	1.51	2.05

*Means in the same column followed by a different letter differ significantly (P < .05) as determined by Duncan's New Multiple Range Test.

Table 4. Cotton: Lint percent, lint grade, staple length and stick content, by nitrogen rate, row spacing and seeding rate, Stoneville, Mississippi, 1972 and 1973.*

Treatment	Lint			Lint grade			Staple length			Stick content		
	1972	1973	1972-73 Average	1972	1973	1972-73 Average	1972	1973	1972-73 Average	1972	1973	1972-73 Average
	------Percent-----			-----Index[1]-----			-----32nd inch-----			-----Percent-----		
Nitrogen rate-lb/A												
40	33.1	33.5	33.3	93.0 a	90.4 a	91.7 a	34.2	34.5	34.4	.68 a	.42 a	.55 a
80	31.9	32.3	32.1	89.0 b	86.7 b	87.9 b	34.4	34.2	34.3	.85 b	.74 b	.80 b
120	30.5	33.3	31.9	85.4 c	86.5 b	86.0 c	34.3	34.8	34.5	1.08 c	.46 a	.77 b
Row spacing-inches												
40	31.9	32.6	32.3	89.9	87.2	88.5	34.3	34.3 b	34.3	.75 a	.63 b	.69
30	31.7	33.2	32.5	88.6	87.9	88.3	34.3	34.6 a	34.4	.92 b	.51 a	.71
15	32.0	33.3	32.6	89.0	88.5	88.8	34.3	34.5 ab	34.4	.94 b	.48 a	.71
Seeding rate-lb/A												
15	32.2	33.5	32.8 a	89.4	88.9 a	89.1 a	34.3	34.6 a	34.4 a	.76 a	.55	.66
30	31.6	33.0	32.3 b	89.5	87.9 ab	88.7 ab	34.2	34.3 b	34.3 b	.89 ab	.56	.72
45	31.7	32.7	32.2 b	88.6	86.8 b	87.7 b	34.3	34.5 ab	34.4 a	.96 b	.51	.74

*Means in the same column followed by a different letter differ significantly (P < .05) as determined by Duncan's New Multiple Range Test.

[1]Composite grade index for white cotton: Strict low middling = 94; and Low middling = 85.

Table 5. Cotton: Total costs and net returns by nitrogen rate, row spacing and seeding rate, Stoneville, Mississippi, 1972 and 1973.

Row spacing	Seeding rate	Total costs			Net returns[1]		
		1972	1973	1972-73 Average	1972	1973	1972-73 Average
inches	lb/A	Dollars					
		40 lb N per acre					
40	15	164.46	143.05	153.76	109.25	197.79	153.52
	30	169.07	148.10	158.59	101.18	207.69	154.44
	45	173.25	151.85	162.55	99.03	191.32	145.18
	Average	168.93	147.66	158.30	103.15	198.93	151.04
30	15	172.31	145.79	159.05	78.68	222.18	150.43
	30	175.35	144.88	160.12	96.04	166.94	131.47
	45	177.49	151.08	164.29	99.17	178.17	138.67
	Average	175.05	147.25	161.15	91.30	189.10	140.20
15	15	155.47	134.65	145.06	89.25	116.36	102.81
	30	157.50	144.11	150.81	90.81	171.88	131.35
	45	160.74	142.93	151.84	85.40	113.99	99.70
	Average	157.90	140.56	149.23	88.49	134.08	111.29
		80 lb N per acre					
40	15	173.36	154.39	163.88	131.84	278.66	205.25
	30	177.57	157.55	167.56	119.74	269.47	194.61
	45	182.00	161.22	171.61	118.28	257.70	187.99
	Average	177.65	157.72	167.69	123.29	268.61	195.95
30	15	183.01	154.69	168.85	124.07	279.90	201.99
	30	186.16	160.79	173.48	131.87	264.42	198.15
	45	191.87	165.59	178.73	129.45	267.90	198.68
	Average	187.01	160.36	173.70	128.46	270.74	199.60
15	15	170.63	149.44	160.04	141.90	222.24	182.07
	30	171.93	154.92	163.43	123.06	260.69	191.88
	45	175.10	160.57	167.84	127.84	262.84	195.34
	Average	172.55	154.98	163.77	130.93	248.59	189.76
		120 lb N per acre					
40	15	175.09	157.09	166.09	106.05	279.45	192.75
	30	182.91	164.14	173.53	123.40	296.42	209.91
	45	186.19	168.82	177.51	111.26	296.71	203.99
	Average	181.40	163.35	172.38	113.57	290.86	202.22
30	15	183.43	158.38	170.91	125.36	284.97	205.17
	30	185.69	166.10	175.90	115.54	303.51	209.53
	45	193.97	170.18	182.08	127.16	308.15	217.66
	Average	187.69	164.89	176.29	122.68	298.88	210.78
15	15	169.46	152.08	160.77	130.80	267.27	199.04
	30	174.87	158.28	166.58	135.40	282.77	209.09
	45	179.01	161.76	170.39	110.49	256.86	183.68
	Average	174.44	157.37	165.91	125.56	268.96	197.26
Interaction		NS	NS	NS	NS	NS	NS

[1]Net return is return above specified costs and represents the return to land, management and general farm overhead.

Table 6. Cotton: Total costs and net returns by nitrogen rate and seeding rate, row spacing a seeding rate, and seeding rate, Stoneville, Mississippi, 1972 and 1973.*

Nitrogen rate	Seeding rate	Total costs			Net returns[1]		
		1972	1973	1972-73 Average	1972	1973	1972-7 Avera
lb/A	lb/A	Dollars per acre					
40	15	164.08	141.17	152.63	92.39	178.78	135.59
	30	167.30	145.69	156.50	96.01	182.17	139.09
	45	170.49	148.62	159.56	94.53	161.16	127.85
	Average	167.29 a	145.16	156.23 a	94.31	174.03 b	134.18
80	15	175.67	152.84	163.29	132.60	260.27	196.44
	30	178.55	157.75	168.15	124.89	264.86	194.88
	45	182.99	162.46	172.73	125.19	262.81	194.00
	Average	179.07 b	157.68	168.06 b	127.56	262.65 a	195.11
120	15	175.99	155.85	165.92	120.74	277.23	198.99
	30	181.15	162.84	172.00	124.78	294.23	209.51
	45	186.39	166.92	176.66	116.30	287.24	201.77
	Average	181.18 b	161.87	171.53 b	120.61	286.23 a	203.42
Interaction		NS	NS	NS	NS	NS	NS
Row spacing	**Seeding rate**						
inches	lb/A						
40	15	170.97	151.51	161.24	115.71	251.96	183.84
	30	176.52	156.59	166.56	114.77	257.86	186.32
	45	180.48	160.63	170.56	109.52	248.58	179.05
	Average	175.99 b	156.24 b	166.12 b	113.33	252.80 a	183.07
30	15	179.58	152.95	166.27	109.37	262.35	185.86
	30	182.40	157.26	169.83	114.48	244.96	179.72
	45	187.77	162.28	175.03	118.59	251.41	185.00
	Average	183.25 c	157.50 b	170.38 c	114.15	252.91 a	183.53
15	15	165.19	145.39	155.29	120.65	201.95	161.30
	30	168.10	152.43	160.27	116.42	238.45	177.44
	45	171.61	155.09	163.35	107.92	211.23	159.58
	Average	168.30 a	150.97 a	159.64 a	115.00	217.21 b	166.11
Interaction		NS	NS	NS	NS	NS	NS
Seeding rate							
lb/A							
15 (Average all plots)		171.91 a	149.95 a	160.93 a	115.24	238.76	177.00
30 (Average all plots)		175.67 b	155.43 b	165.55 b	115.22	247.08	181.16
45 (Average all plots)		179.96 c	159.33 c	169.65 c	112.00	237.07	174.54

*Means in the same column followed by a different letter differ significantly ($P < .05$) determined by Duncan's New Multiple Range Test.

[1]Net return is return above specified costs and represents the return to land, manageme and general farm overhead.

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Evaluation of the Stoneville Parabolic Subsoiler

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Evaluation of the Stoneville Parabolic Subsoiler

Highlights and Conclusions

Cotton yields were increased by subsoiling, with most of the increase obtained at second harvest. Average taproot length was increased by subsoiling and average residual soil strength was still lower for subsoiled treatments about 11 months after subsoiling. Lint yield and taproot length were positively correlated in all treatments, lint yield and residual soil strength were negatively correlated in all treatments and taproot length and residual soil strength were negatively correlated in all treatments except subsoiling with the Stoneville Parabolic Subsoiler.

The two most important facts established by the trials are: residual soil strength and taproot length did not limit lint yields significantly on plots subsoiled with the Stoneville Parabolic Subsoiler and tractor wheel slippage was 43.4 percent less in pulling the parabolic subsoiler than in pulling the conventional subsoiler.

Subsoiling has increased cotton yields, especially on sandy loam and silt loam soils where soil compaction is a problem. Deep tillage has resulted in significant increases in cotton yields where soil compaction problems limit water intake and storage and root development (5, 9, 12, 18 and 20). Subsoiling a fine sandy loam soil with a hard pan increased cotton yields over 100 percent in the Mississippi Delta in a 1954 test (7). Precision tillage, subsoiling under the drill row, and bedding in the same operation have increased cotton yields in sandy and fine sandy loam soils (2). Cotton yields were shown to be proportional to the decrease in soil strength in the soil resulting from precision tillage (3). Research indicated that roots could penetrate 90 to 95 percent of a fine sandy loam soil where a precision tillage system was used but could penetrate only about 30 percent of the soil when a conventional system was used (4).

Greacen (6) studied the interactions of soil strength, moisture tension, and the porosity of clay soils. Soil strength and moisture tension increased as soil compaction increased and porosity of soil decreased as compaction increased. Thus, increasing soil compaction resulted in limited plant growth because it produced undesirable changes in these three important soil characteristics.

Vomocil, *et al* (19) measured the rate at which water infiltrated soil before and after a tractor had been in operation on the soil. Increasing drawbar pull was used to increase wheel slippage and compaction. The infiltration rate was reduced when soil compaction was increased by wheel slippage. A decrease in water-infiltration rate of soil usually increases water runoff and erosion; thus, excessive compaction presents water and soil conservation problems. Sievers, *et al* (13) concluded from their work that losses of fertilizers and organic insecticides could be partially controlled by reducing runoff and controlling erosion.

Osman (10) found that moving an inclined plane through soil compressed it until its maximum shear strength was reached. A

wedge-shaped mass of soil was sheared from the soil bulk when failure occurred. Tanner (16) found that the approach angle of an inclined plane affects both the normal pressure on the tool and the amount of soil disturbed by the tool. He found that average normal pressure decreased as approach angle[1] of the tool decreased and that this relationship was associated with reduced draft.

Payne and Tanner (11) concluded that tines narrower than two inches tend to slice through the soil rather than lift it. Distance of soil disturbance beyond the sides of a tool was relatively insensitive for tines two or more inches wide. They concluded that draft was relatively insensitive to approach angles of 20° to 50° but increased very rapidly as approach angles exceeded 50°. They also found that soil provided a component force that assisted tool penetration when tines were inclined at less that 50° to 55°---at greater approach angles the component force opposed penetration. Tanner's work at the National Tillage Machinery Laboratory confirmed these conclusions (Table 1). A tool operated with an approach angle less than 55° usually resulted in a greater upheaval of the soil than a tool operated with an approach angle greater than 55°.

Table 1. A summary of D. W. Tanner's work using a chisel tine[1] in three soils at the USDA National Tillage Machinery Laboratory, Auburn, Alabama.

Approach angle	Average draft	Average vertical forces[2]	Resultant forces
deg.	----------lbs----------		
20	63	-41	75
48	100	-15	101
76	181	37	185
90	224	76	237
104	260	113	283
132	306	205	368

[1]Rectangular plate tines 2 inches wide, 6 inches deep, covering the range of inclination to the horizontal of 20°-132° were drawn through Lakeland sand, Hiwassee sandy loam, and Lloyd clay in soil bins at the N.T.M.L., Auburn, Alabama.

[2]A negative sign denotes a downdraft on the tool and a positive sign denotes updraft.

Source: Tanner, D. W., "Further work on the relationship between rake angle and the performance of simple cultivation implements", Journal of Agricultural Engineering Research, Vol. 5, 1960 pages 307-315.

Sohne (14) found that concavely-curved tines were more effective than straight tines in breaking soil into smaller elements. Osmon (10) found that draft of curved tines in soils for a particular rake a increased with the amount curvature and lies between maximum and minimum limi the approach angles.

Subsoiler Design

The basic information developed by the research described above was incorporated into the Stoneville Parabolic Subsoiler designed at the MAFES Delta Branch in 1972 (17). The subsoiler standard (Figure 1) was designed as a parabolic curve with a long and gradual increase in slope, from 22° at the foot to 50° at the soil surface, when operating at a 16-inch depth. The foot was a conventional three-inch design with a 22° approach angle and hard upper and lower surfaces. Tool bar clearance from the bottom of the foot was 32½ inches. The standards were cut from 1½-inch mild steel plate.

Tractor-mounted implements with a steeper line of draft are advantageous because greater weight transfer to the rear wheels reduces wheel slippage (Heitshu, 1952). The foot of the parabolic subsoiler standard is further forward in the operating posi than is the foot of a conventi subsoiler. The subsoiler designed with the center stan moved forward 12 inches. T two design factors were ir porated into the Stonev Parabolic Subsoiler to obtain steeper line of draft required fo greater weight transfer to tractor wheels needed to re wheel slippage.

[1]A 90° approach angle represents a tool operated in a vertical position.

Figure 1. The Stoneville Parabolic Subsoiler.

Field Tests

Tests on Bosket fine sandy loam soil were conducted at the MAFES Delta Branch in 1974 and 1975. Three treatments were arranged in a randomized complete block design with four replications. Plot size for each treatment was six rows 40 inches wide and 100 feet long. Treatment of each plot in 1974 was repeated in 1975. Cultural practices on plots were identical except for treatment differences.

Treatments were: (1) no subsoiling, (2) subsoiling with a conventional subsoiler---16 inches deep in the drill (Figure 2), and (3) subsoiling with the Stoneville Parabolic Subsoiler---16 inches deep in the drill. Subsoiling was done on February 28, 1974 and January 30, 1975.

Seedbed preparation consisted of subsoiling (as required by treatments) and hipping twice over the old stubble (15). Nitrogen, as a 32 percent urea-ammonium nitrate solution, was applied at the rate of 80 lb/A after the first hipping. The seedbed was knocked down with a bed conditioner (Do-all) ahead of the planter.

Twenty pounds per acre of 'Stoneville 213' acid delinted s were planted on April 26, 1974 a April 28, 1975. Diuron was appl for preemergence weed cont Conventional cultivation a postemergence weed control pr tices were used on all plots. Ins ticides were applied by air needed. The tests were defoliate maturity and the two center row each plot were spindle picked tw each year. Samples were ginned a 20-saw gin with a stand equipment sequence (1)[2].

Figure 2. The conventional subsoiler used in this test.

Results and Discussion

Seed cotton yields in 1974 v higher ($P < .05$) on plots subso with the parabolic subsoiler t on plots that were not subsoi This difference more than of the smaller difference in 1975 the two-year average yield of p subsoiled with the parabolic soiler were higher than yields f plots that were not subsoiled (T 2). The only significant differe between subsoilers was in when total lint yield was highe plots subsoiled with the parab subsoiler.

Earliness, expressed as t percentage of lint harvested at pick, generally was delayed subsoiling but differences in from first harvest did not d significantly by treatment in ei year. Total lint yield in 1974 highest from plots subsoiled the parabolic subsoiler and the year average was higher for types of subsoilers than for subsoiling.

Taproots were longer on co from plots subsoiled with both conventional and parabolic soilers. Differences between soiling treatments were not sig

[2]*Cotton was ginned at the U. S. Cotton Ginning Research Laboratory at Stoneville, Mississippi.*

Figure 3. Taproots of cotton plants from the 1975 trials: (left) from plots not subsoiled in 1974 and 1975; (center) from plots not subsoiled in 1975; (right) from plots subsoiled in 1974 and 1975. All plots had been subsoiled each year for many years before the trial was started in 1974.

nt but taproots of plants from ots subsoiled with the parabolic bsoiler were slightly longer and aighter (Figure 3).

Residual soil strength (measured out 11 months after subsoiling d when soil moisture was high) s not significantly lower ($P < .05$) for subsoiled plots in 1974. However, significant differences in 1975 more than offset the smaller differences in 1974 and the two-year averages were significantly lower for subsoiled plots than for plots that were not subsoiled. Differences between type of subsoiler were not significant.

Computed relationships of (1) lint yield and taproot length, (2) lint yield and residual soil strength and (3) taproot length and residual soil strength reveal a positive correlation of taproot length and lint yield for all treatments, a

Table 2. Effect of subsoiling method on yield, earliness and tap root length of cotton and on residual soil strength, MAFES Delta Branch, 1974 and 1975.

Year	Subsoiling method	Seed Cotton			Lint			Percent of Lint Harvested	Avg. taproot length	Residual soil strength[1]
		1st	2nd	Total	1st	2nd	Total	at first pick		
		----------lbs/Acre----------							(in.)	(lbs/sq in)
1974	none	2250	542b[2]	2792b	723	164b	887b	81.1a	6.7b	530
	conventional	2357	630ab	2987ab	737	187ab	924b	79.1ab	8.9a	463
	parabolic	2235	736a	3071a	759	226a	985a	76.0b	10.5a	413
1975	none	2500	697b	3197	790	236b	1026	76.7a	7.2b	482b
	conventional	2431	908a	3339	768	325a	1093	70.1b	9.8a	339a
	parabolic	2541	882a	3423	771	322a	1093	70.6b	9.9a	320a
2 yr avg	none	2375	620b	2995b	757	200b	957b	78.9a	6.9b	506b
	conventional	2394	769a	3163a	752	256a	1009a	74.6b	9.3a	401a
	parabolic	2438	809a	3247a	765	274a	1039a	73.3b	10.2a	367a

[1]Measurements made about 11 months after subsoiling and when soil moisture was high.
[2]Values in each column followed by the same letter are not significantly different ($P < .05$) as determined by Duncan's New Multiple Range Test.

negative correlation of residual soil strength and lint yield for all treatments and a negative correlation of residual soil strength and taproot length for all treatments except subsoiling with the parabolic subsoiler (Table 3). Correlations of (1) lint yield and taproot length, (2) lint yield and residual soil strength and (3) taproot length and residual soil strength were not significant for plots subsoiled with the parabolic subsoiler.

Taproot length was a significantly limiting factor in lint yields from the non-subsoiled plots and soil strength was a significantly limiting factor in taproot length. Soil strength was a significantly limiting factor in lint yield and in taproot length on plots subsoiled with the conventional subsoiler. *Taproot length and soil strength were not significantly limiting factors in total lint yield from plots subsoiled with the parabolic subsoiler, and soil strength did not limit taproot length.*

Horsepower requirements are reduced with the lower ap[proach] angle of the parabolic su[bsoiler] shank because the shank ex[erts] an upward shearing force on t[he] soil rather than the forward [com]pressive force exerted by the [hig]her approach angle of the conve[ntio]nal subsoiler shank.

Wheel slippage of the [trac]tor pulling a three-shank conve[ntio]nal subsoiler 16 inches deep w[as] 13.6 percent; for the same tracto[r] pulling the parabolic subsoiler [at] this depth, 7.7 percent (a reduc[tio]n of 43.4 percent).

Limitations of Study

Results reported in this publication are based on data from only two years of observation on the one soil type. The years were relatively wet and maximum benefits from subsoiling were not anticipated. The parabolic subsoiler will be tested further, on other soil types and under moisture conditions more conducive to benefits from subsoiling.

Table 3. Relationship of (1) lint yield and taproot length, (2) lint yield and residual soil strength and (3) taproot length and residual soil strength, cotton grown on plots of Bosket fine sandy loam soil, without subsoiling or subsoiled with conventional or the Stoneville Parabolic Subsoiler, MAFES Delta Branch, 1974 and 1975.

Number of observations	Regression equation	Correlation coefficient	$(r^2 \times 100)$[1]	Level of significance
	Treatments Combined			
48	L = 788 + 24.2 R	0.405	16.4	1%
48	L = 1180 - .42 S	-0.409	16.7	1%
48	R = 12.9 - .0095 S	-0.554	30.7	0.1%
	No Subsoiling			
16	L = 683 + 39.6 R	0.489	23.9	10%
16	L = 1018 - .12 S	-0.100	1.0	N.S.
16	R = 10.5 - .0070 S	-0.467	21.8	10%
	Conventional Subsoiler			
16	L = 825 + 19.7 R	0.265	7.0	N.S.
16	L = 1267 - .65 S	-0.598	35.8	2%
16	R = 12.2 - .0071 S	-0.491	24.1	10%
	Stoneville Parabolic Subsoiler			
16	L = 940 + 9.7 R	0.121	1.5	N.S.
16	L = 1139 - .27 S	-0.244	6.0	N.S.
16	R = 9.9 + .0007 S	0.049	0.2	N.S.

[1]Percent of dependent variable explained by the independent variable.
L = total lint yield harvested (lbs/A).
R = average taproot length (inches).
S = residual soil strength (lbs/sq in).

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Changes in Occupational and Industrial Structure of Employed Urban Residents, Mississippi, 1960-1970

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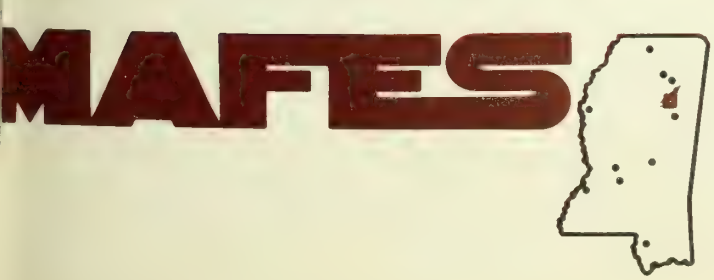

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Changes in Occupational and Industrial Structure of Employed Urban Residents, Mississippi, 1960-1970[1]

Three forces can be identified in studies of industrial development trends in advanced societies: (1) a tendency toward localization of industries; (2) agricultural drift; i.e. a gradual shift of the workforce from agriculture into other economic activities; and (3) urban growth or urbanization (7).[2] These three forces are "basically independent", but their influences undoubtedly are inter-related. It is because of the nature of this relationship that the phenomenon of urbanization has been seen frequently as one of the prominent characteristics of modern societies (2).

Growth of urbanization in the United States, as in most parts of the world, has been augmented and stimulated by the development of and change in technology (15). Technological development means the creation of new kinds of jobs, revision of labor in the community, and sometimes the introduction of new industries. The dynamics of technology strongly influence the development and use of natural resources which, in turn, have important effects on the occupational composition of the employed population. For example, mechanization of agriculture and the introduction of modern means of transportation enable farmers to reside in urban localities and participate in nonagricultural activities.

Urban population increases are made possible by technological advances in general and by substantial increases in agricultural productivity in particular, because urban dwellers generally have depended upon farmers to provide food (16). Urban growth in Mississippi, as in most of the South, is expected to continue in the future, but at a decreasing rate.

The transition produced by rural-farm desertion and urban concentration suggests a major inquiry into differentials in occupations of residents of "urbanized areas" and "other urban" areas in Mississippi.

Occupational classification long has attracted the thoughts of social scientists because of its close relationship to the economic advancement and social well-being of societies. As early as 1776, for instance, Adam Smith referred to divisions of employment as the basic wellspring of "the wealth of nations" (14). Occupation determines both income level and "social position of the individual" (13) each of which can be determined by providing answers to questions about wage-earning, tax-paying, and social class of urbanites---questions of interest to public officials, policy makers, businessmen, administrators, and laymen. Moreover, as an aid to understanding the nature of the

[1]*This article is a revision of a paper presented at the annual meeting of the Southern Sociological Society, Atlanta, Georgia, April 12-14, 1973. The research was part of Mississippi Agricultural and Forestry Experiment Station Population Project No. 4004. The analysis is confined to Mississippi's urban areas. For a comparative analysis covering urban, rural-farm and rural non-farm residential types, see (6). A number of persons have contributed their assistance in the preparation of this report. More specifically, credit is due to Professors A. W. Bond, J. C. Crecink, J. Saunders, C. R. Sollie, and C. M. Wells for their reviews and comments on earlier drafts of this manuscript. Thanks to Mr. D. L. Steinman for drawing the charts.*

[2]*Numbers in parentheses refer to literature cited.*

socio-economic development experienced by the state in the last decade, an investigation of the changing redistribution of people and jobs in urban Mississippi is necessary. One approach to this is to measure the differential change in the occupational structure of employed residents and compare these differentials with the differential change in the industrial structure of these urban types. Focus on changes in the structure of economic activities is fundamental to urban economic analysis because it enables the researcher to identify and measure the extent of industrial differentiation prevailing in the State. Moreover, changes in industrial structure determine the degree of industrialization and the consequent urban growth in the State. This approach takes as its point of departure the following premises:

1. The rate of change in residentiary employment depends on the size of employment in the basic activities. "These basic activities not only provide the means of payment for raw materials, food, manufactured products which the (area) cannot produce itself but also support the 'service' activities, which are principally local in the productive scope and market areas"[3].

2. The above premise emphasizes the relationship of industrialization (and, consequently, the division of labor) to the extent of the market. This type of relationship has been recognized since the days of Adam Smith who stated:

> "It is impossible there should be such a trade as even that of a nailer in the remote and inland parts of the Highlands of Scotland. Such a workman at the rate of a thousand nails a day, and three hundred working days in the year, will make three hundred thousand nails in the year. But in such a situation it would be impossible to dispose of one thousand, that is, of one day's working, in the year" (14).

Objective

The objective of this study was to test the hypothesis that urban growth in Mississippi tends to be differentiated with respect to the '*occupational*' and '*industrial structures*'[4] of employed residents of '*urbanized areas*'[5] and '*other urban areas*'[6]. Underlying the hypotheses is the assumption that observed differences in '*occupational structure*' are the product of the difference in changes in the '*industrial structure*'[7] of the work force residing in each of four '*urban type*'[8] areas

[3]*These basic activities constitute, among others, the production, processing, trading, distribution and provision of goods, services, and capital mainly to individuals and organizations located outside the boundaries of urban areas in which the activities are located. See (12, 16).*

[4]*'Occupational structure' refers to allocation of the work force to the different functions within the occupational-group strata of a society. "The occupational structure in modern industrial society" shows the allocation of manpower to various institutional spheres, and it is the flow of movements among occupational groups that reflects the adjustment of the demand for diverse services and supply of qualified manpower" (1).*

[5]*'Urbanized area' is "a central city of 50,000 inhabitants or more in the 1960 or 1970 census; or twin cities, i.e., cities with contiguous boundaries and constituting a single community with a combined population of at least 50,000 and with the smaller of the twin cities having a population of at least 15,000. All persons residing in an 'urbanized area' are classified as urban. The 'urbanized area' population is divided into those in the 'central city' and those in the 'urban fringe' " (17). The major advantage of designating 'urbanized areas' is that it provides an easy method for separating urban and rural populations in the vicinity of larger cities.*

[6]*'Other urban areas' refers to urban categories other than those included in 'urbanized areas.' Specifically, 'other urban areas' are classified into (1) urban places of 2,500 to 9,999 inhabitants and (2) urban places with 10,000 or more but less than 50,000 inhabitants.*

[7]*'Industrial structure' refers to the distribution of a society's manpower among industries. Expressed as data, it is the number of persons employed in each industry.*

[8]*The term, 'urban type,' is used in this study to refer to the 'central city,' the 'urban fringe' and to 'other urban areas.' Four urban types are identified: 'central cities,' 'urban fringe,' places with 2,000 to 9,999 inhabitants and places with 10,000 or more but less than 50,000 inhabitants.*

Analytical Procedures

Changes in '*occupational structure*' and '*industrial structure*' of each '*urban type*' and of all '*urban types*' combined are expressed as the redistribution index[9]---an index with the property of summarizing changes over time in *occupational* and *industrial structures*' in different '*urban type*' areas and for assessing total shifts in these structures in all '*urban types*.' The index for each '*urban type*' in Mississippi was constructed as follows: numbers of employees in each occupation and industry in 1960 and 1970 were expressed as a percentage of total employment in each occupation and industry in each year and the percentage-point change from 1960 to 1970 was obtained by subtraction. (For example, if numbers employed in a given occupation were 22.50% and 23.75% of total employment in 1960 and 1970, respectively, the redistribution index is 1.25---23.75 - 22.50.) Data for all '*urban type*' areas were combined and indices of total shifts in '*occupational*' and '*industrial structures*' in all '*urban types*' were obtained by the same procedure.

The hypothesis that urban growth in Mississippi tends to be differentiated with respect to the '*occupational*' and '*industrial structures*' of employed residents of '*urbanized areas*' and '*other urban areas*' was tested by analysis of variance.

TABLE 1. Population, Total and By Designated Urban and Rural Categories, With Comparisons, Mississippi, 1950, 1960 and 1970.

Population	1950	1960	1970
Total (Number)	2,178,914	2,178,141	2,216,912
Urban (Number)	607,162	820,805	987,312
(% of Total)	27.9	37.7	44.5
Urbanized Areas[1] (Number)	100,261	147,480	321,075
(% of Total)	4.6	6.8	14.5
(% of Urban)	16.5	18.0	32.5
Other Urban Areas (Number)	506,901	673,325	666,237
(% of Total)	23.3	30.9	30.1
(% of Urban)	83.5	82.0	67.5
Rural (Number)	1,571,752	1,357,336	1,229,600
(% of Total)	72.1	62.3	55.5
Rural Farm (Number)	1,097,207	542,839	210,323
(% of Total)	50.4	24.9	9.5
Rural Non-Farm (Number)	474,545	814,497	1,019,277
(% of Total)	21.8	37.4	46.0

[1]Only one 'urbanized area' (Jackson) in 1950 and 1960. The 1970 Census of Population delineated three 'urbanized areas' in 1970 (Biloxi-Gulfport, Jackson, Memphis).

Source: 1950 figures are from U. S. Department of Commerce, Bureau of the Census, *U. S. Census of Population: 1950, General Characteristics, Mississippi,* **(Washington, D.C.: Government Printing Office, 1952), Table 15, p. 23; 1960 figures are from** *U. S. Census of Population: 1960, General Social and Economic Characteristics, Mississippi* **(1961), Table 37, p. 112; 1970 figures are from** *U. S. Census of Population: 1970, General Social and Economic Characteristics, Mississippi* **(1972), Table 59, as corrected by the U. S. Bureau of the Census for rural-farm and rural non-farm population.**

Population and Employment Changes

Total population of Mississippi declined slightly from 1950 to 1960 but increased during the next decade, bringing the total count in 1970 to almost 2% above that of 1950. Urban population increased and rural population decreased from 1950 to 1960 and from 1960 to 1970, bringing urban population to almost 45% of the total in 1970 (Table 1). Population of the Jackson area increased almost 50%

[9]*This method has been frequently used to detect occupational and areal changes. See (3, 5, 8, 10, 12).*

TABLE 2. Population and Employment of Civilians Age 14 and Over, Total and By Designated Urba and Rural Categories, With Comparisons, Mississippi, 1950, 1960 and 1970.

Item	1950	1960	1970	Percent Change 1950-60	1960-70	1950-7
Population						
Total (Number)	1,481,070	1,439,473	1,568,051	- 2.8	8.9	5.9
Urban (Number)	450,711	560,293	710,488	24.3	26.8	57.6
(% of Total)	30.4	38.9	45.3			
Urbanized Areas[1] (Number)	75,264	99,704	228,372	32.5	129.0	203.4
(% of Total Population)	5.1	6.9	14.6			
(% of Urban Population)	16.7	17.8	32.1			
Other Urban Areas (Number)	375,447	460,589	482,116	22.7	4.7	28.4
(% of Total Population)	25.3	32.0	30.7			
(% of Urban Population)	83.3	82.2	67.9			
Employment						
Total (Number)	776,851	682,339	724,699	-12.2	6.2	- 6.7
(% of Total Population)	52.5	47.4	46.2			
Urban (Number)	226,644	290,278	354,379	28.1	22.1	56.4
(% of Total Population)	15.3	20.2	22.6			
(% of Total Employment)	29.2	42.5	48.9			
Urbanized Areas[1] (Number)	42,959	59,002	113,460	37.3	92.3	164.1
(% of Total Population)	2.9	4.1	7.2			
(% of Urban Population)	9.5	10.5	16.0			
(% of Total Employment)	5.5	8.6	15.7			
(% of Urban Employment)	19.0	20.3	32.0			
Other Urban Areas (Number)	183,685	231,276	240,919	25.9	4.2	31.2
(% of Total Population)	12.4	16.1	15.4			
(% of Urban Population)	40.8	41.3	33.9			
(% of Total Employment)	23.6	33.9	33.2			
(% of Urban Employment)	81.0	79.7	68.0			

[1]Only one 'urbanized area' (Jackson) in 1950 and 1960. The Census of Population delineate three 'urbanized areas' in 1970 (Biloxi-Gulfport, Jackson, Memphis).

Source: 1950 figures are from U. S. Department of Commerce, Bureau of the Census, *U. S. Census o Population: 1950, Vol. II, Characteristics of the Population, Mississippi* **(Washington, D.C.: Governmen Printing Office, 1952), Table 25, pp. 31-32 and Table 35, pp. 45-47; 1960 figures are from** *U. S. Census o Population: 1960, General Social and Economic Characteristics, Mississippi* **(1961), Table 70, pp. 140-42, an** *U. S. Census of Population: 1970, General Population Characteristics, Mississippi* **(1971), Table 20, pp. 44-49 and** *U. S. Census of Population: 1970, General Social and Economic Characteristics, Mississippi* **(1972), Tabl 66, p. 177.**

from 1950 to 1960 and population of '*urbanized areas*' more than doubled between 1960 and 1970, primarily as a result of adding Biloxi-Gulfport and Memphis to the '*urbanized*' category. Population of '*other urban areas*' still accounts for more than two thirds of total urban population but has declined relative to '*urbanized*' population. Substantial increases in numbers of rural non-farm residents failed to offset the precipitous decreases in farm population and total rural population declined from 72.1% of total population in 1950 to 62.3 and 55.5% in 1960 and 1970, respectively.

Changes in population of civilians age 14 and over followed the pattern reported for total population; however, decreases from 1950 to 1960 and the increases from 1960 to 1970 were greater for the age 14 and older group than for the total population. Numbers of urban residents age 14 and older increased in each decade and the urban work force accounted for slightly more than 45% of the total work force in 1970 (Table 2).

Numbers of employed Missi pi residents increased slightly 1960 to 1970; however, the inc failed to offset the substa decrease from 1950 to 1960 total employment in 1970 below that in 1950. Employme a percentage of the work declined in each decade. M changes between and within u and rural employment since were:

(1) Total urban employ

eased in each decade and ahed almost one half of total nloyment in 1970.

(2) Employment increased in *'urbanized areas'* and *'other urban areas'*---at an increasing rate in *'urbanized areas,'* a decreasing rate in *'other urban areas.'*

(3) Employment in *'other urban areas'* accounted for more than one half of total urban employment in 1970; however, employment in *'urbanized areas'* increased from 19% of total urban population in 1950 to 32% in 1970.

Occupational Changes

A change in occupation between 6 and 1970, as measured by the distribution index, was made by 7 f each 10,000 employed *'urban* p residents (Table 3). The anitude of change was greatest sidents of *'urbanized areas'*--- rgst for the 'urban fringe' and alest for 'central cities.' Shifts employment of all *'urban type'* sients were to occupations requiring more academic and technical training (professional workers and craftsmen) and to the service and clerical occupations typically associated with greater urbanization.

Changes in occupation differed importantly by type of urban community in which employed members of the work force lived (Figure 1). Highlights of the differences[10] are:

(1) Professional workers and clerical workers gained in each *'urban type'* category. Largest gains by professional workers were in the 'urban fringe'; by clerical workers, in places of 10,000 or more but less than 50,000.

(2) Farmers and farm managers, sales workers, managers and private household workers lost in

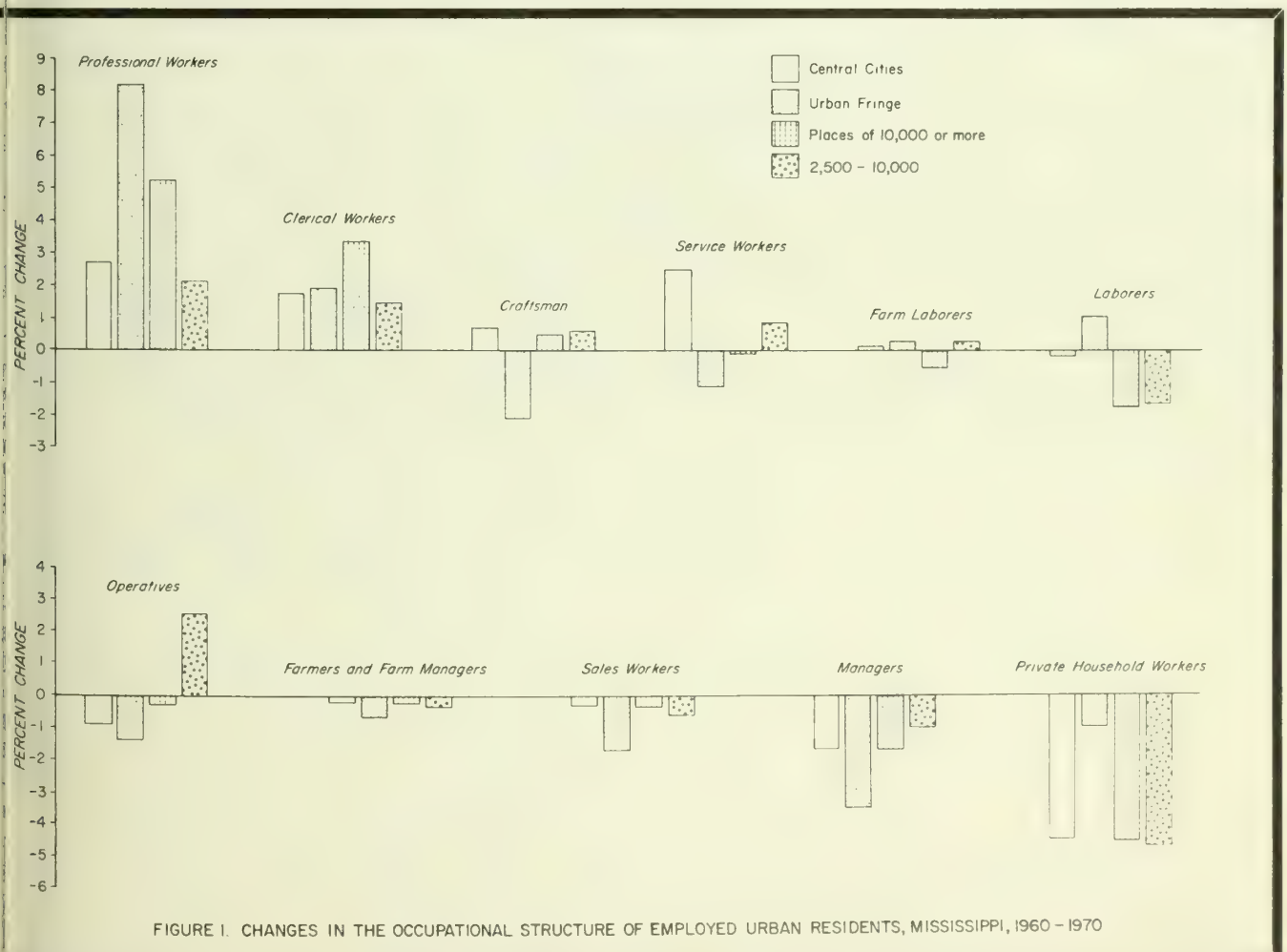

FIGURE 1. CHANGES IN THE OCCUPATIONAL STRUCTURE OF EMPLOYED URBAN RESIDENTS, MISSISSIPPI, 1960 - 1970

[10] *These findings are in agreement with findings obtained from other studies. See for example (9, 11).*

each '*urban type*' category. Losses by the first three of these occupational groups were greatest for workers in the 'urban fringe'. Losses by private household workers were lowest in the 'urban fringe'.

(3) No consistent pattern of gain or loss by '*urban type*' categories was found for the other occupational groups.

Changes in the '*occupational structure*' of residents of the four '*urban type*' areas were significant ($P < .05$); therefore, the hypothesis that urban growth in Mississippi tends to be differentiated with respect to '*occupational structure*' was not rejected. However, variations among the occupational categories were not significant at the 5% level, implying that all occupational categories experienced similar proportional changes during the decade[11].

TABLE 3. Employment Changes From 1960 to 1970 Civilians Age 14 and Over, Total For Designated Urba Places and By Occupation For All Urban Places, Mississip pi.[1]

Occupation	Gains	Losse
	Central Cities	
All Occupations	7.62	7.62
	Urban Fringe	
All Occupations	11.34	11.34
	Places of 10,000 or Mor But Less Than 50,000	
All Occupations	8.92	8.92
	Places of 2,500 But Less Than 10,000	
All Occupations	7.98	7.98
	All 'Urban Types'	
Professional Workers	4.04	
Clerical Workers	2.99	
Craftsmen	.71	
Service Workers	.63	
Farm Laborers		.1
Laborers		1.3
Operatives		.3
Farmers and Farm Managers		.2
Sales Workers		.2
Managers		1.2
Private Household Workers		4.8
All Occupations	8.37	8.3

[1]Change expressed as the redistribution index; i.e., 7(of each 10,000 employed residents of central cities h changed occupations between 1960 and 1970.

Source: Computed from U. S. Department of Commer Bureau of the Census, *U. S. Census of Population: 1960, Gene Social and Economic Characteristics, Mississippi* **(Washingto D.C.: Government Printing Office, 1961), Table 70, pp. 14 42; and** *U. S. Census of Population: 1970, General Social a Economic Characteristics, Mississippi* **(1972), Table 66, p. 17**

Industrial Changes

A change in industry between 1960 and 1970, as measured by the redistribution index, was made by 979 of each 10,000 employed '*urban type*' residents (Table 4). The magnitude of change was largest for residents of places with 10,000 or more but less than 50,000, smallest for residents of 'central cities'. Shifts by all '*urban type*' residents were to industries requiring employees with more academic and technical training.

Industry shifts differed importantly by type of urban community in which employed members of the work force lived (Figure 2). Highlights of the differences are:

(1) Employment in professional services and finance increased in each '*urban type*' category. Gains in each '*urban type*' category were greatest for professional services.

(2) Employment in personal services decreased in each '*urban type*' category. The decrease smallest in the 'urban fringe'

(3) No consistent pattern of or loss by '*urban type*' categ

[11] *Occupational change constitutes three components: (1) "the growth effect resulting from the growth economy, that is, proportional increases in all industries and all occupations;" (2) "the industry effect results from disproportionate growth among industries and which affects occupational patterns in va degrees;" and (3) "the occupational mix effect resulting from technological change which causes the volum components of the employed work force within a given industry to differ from one census to another further details on this point, see (5).*

found for the other industry ips.

hanges in the 'industrial struc- of residents of each *'urban type'* is were significant ($P < .05$); therefore, the hypothesis that urban growth in Mississippi tends to be differentiated with respect to 'industrial structure' was not rejected. However, variations among industrial categories were not significant at the 5% level, implying that all industrial categories experienced similar proportional changes between 1960 and 1970[12].

Summary, Conclusions and Implications

his study tested the hypothesis urban growth in Mississippi between 1960 and 1970 tended to be differentiated with respect to the *'occupational* and *industrial structures'* of employed residents of *'urbanized areas'* and *'other urban areas'* of the state. Underlying the hypothesis was the assumption that observed differences in 'occupational structure' are the product of the difference in changes in the *'industrial structure'* of the work force residing in each of four *'urban type'* areas.

Changes in *'occupational structure'* of each *'urban type'* and for all *'urban types'* combined were expressed as the redistribution index. Data for all *'urban type'* areas were combined and indices of total shifts in *'occupational'* and *'industrial structures'* in all *'urban types'* were obtained. The hypothesis was tested by analysis of variance.

Changes in *'occupational structure'* and *'industrial structure'* of residents of the four *'urban type'* areas were significant at the 5% level of probability; therefore, the hypothesis that urban growth in Mississippi tends to be differentiated with respect to *'occupational structure'* and *'industrial structure'* was not rejected. However, variations among occupational and industrial categories were not significant at the 5% level, implying that all occupational and industrial categories experienced similar proportional changes between 1960 and 1970.

The similarity of changes in each industry category may be attributed to one or a combination of three factors:

(1) Newly-created jobs in industry were not significantly different from old ones---that is, jobs needed in the early stages of industrialization tend to concentrate in industries requiring

ABLE 4. Industry Changes From 1960 to 1970, Civilians ge 14 and Over, Total For Designated Urban Places and By dustry For All Urban Places, Mississippi.[1]

Industry	Gains	Losses
	Central Cities	
ll Industries	8.76	8.76
	Urban Fringe	
ll Industries	11.61	11.61
	Places of 10,000 or More But Less Than 50,000	
ll Industries	13.19	13.19
	Places of 2,500 But Less Than 10,000	
ll Industries	10.89	10.89
	All 'Urban Types'	
ofessional Services	6.90	
nance, etc.	.66	
anufacturing	1.82	
siness Services	.23	
blic Administration	.18	
griculture, etc.		.54
ining		.16
ade		1.74
ansportation, etc.		.55
nstruction		.24
ntertainment and Recreation		.19
rsonal Services		6.38
	9.79	9.79

[1]Change expressed as the redistribution index; i.e., 876 each 10,000 employed residents of central cities had found ployment in a different industry between 1960 and 1970.

urce: Computed from U. S. Department of Commerce, reau of the Census, *U. S. Census of Population: 1960, General cial and Economic Characteristics, Mississippi* **(Washington, C.: Government Printing Office, 1961), Table 70, pp. 140-4; and** *U. S. Census of Population: 1970, General Social and onomic Characteristics, Mississippi,* **(1972), Table 66, p. 177.**

See the comments in Footnote 11.

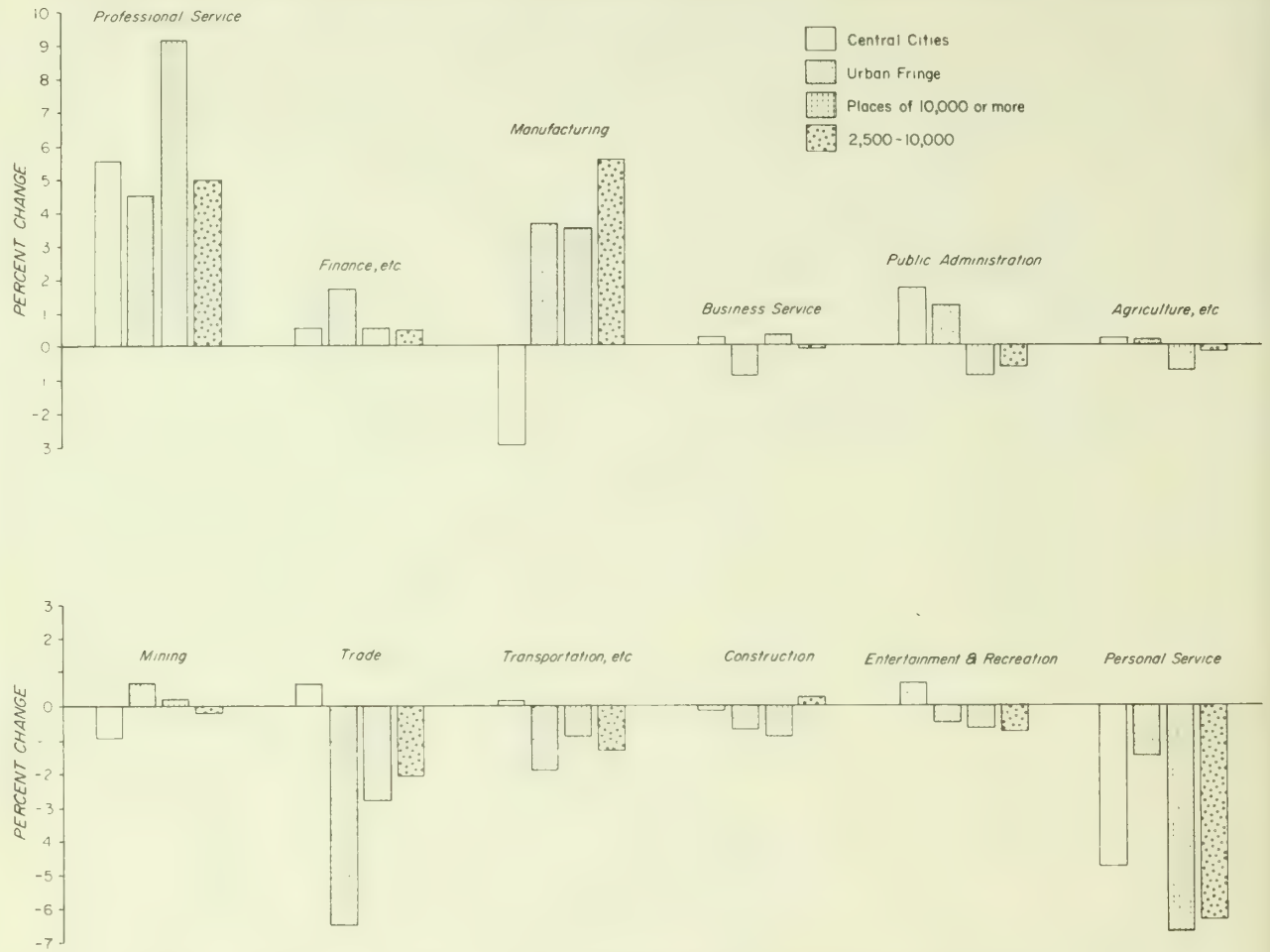

FIGURE 2. CHANGES IN THE INDUSTRIAL STRUCTURE OF EMPLOYED URBAN RESIDENTS, MISSISSIPPI, 1960-1970

minimum or no training. Given the validity of this assertion, one could maintain that observed industrial changes may have been due to small-scale movements of residents with slightly-differentiated job backgrounds, to large-scale movements of residents to jobs similar to those previously held, and/or to annexation as reflected in growth of the 'urban fringe', where employment increased by 2,140% from 1960 to 1970.

(2) Newly-established industries in all areas were similar either with regard to job content or homogeneity of job function.

(3) Use of first-digit industrial classification in the Census tends to conceal industry differences because of the variety of jobs reported in each industrial category. Whether more detailed data would have given results of greater statistical significance could not be determined because of lack of detail in the 1960 Census of Population.

The most suggestive finding the study is that the resident urban pattern of Mississippians a function of changes in *cupational structure*' that tend follow changes in the pattern '*industrial structure*'. However, study also reveals that cert '*urban type*' areas attract ('attractive' to) residents from tain occupations and industr and repel (are 'repellent' residents from certain others.[13]

[13]*The term 'attractive' refers to those qualities and characteristics which draw people by eliciting t interests, desires, and tastes; 'repellent,' on the other hand, is a term that stands in opposition to attract denoting those qualities and characteristics that have the capacity to drive people away (4). There are m factors that have differential capacities to attract or repel human populations. Such factors can be sociolog economic, psychological, climatic, environmental, or others. In this study, a positive change (gain) in indus or occupational structure denotes an attraction whereas a negative change (loss) denotes a repellency.*

or example, redistribution in-
es were positive for professional,
nical and kindred workers in
our '*urban type*' areas, negative
managers and administrators
ng in each '*urban type*' area.
s implies that:

) certain types of occupations
rred only in certain types of urban categories, and/or

(2) commuting and annexation were important in determining urban growth and job changes between 1960 and 1970.

Occupations and place of residence of urbanites are not distributed randomly with respect to industrial activities and this nonrandomness is a function of dynamic factors inherent in a society's growth and change.

Further research is needed to identify other factors (i.e., classification by sex, race and marital status) that generate changes in 'occupational' and 'industrial' structure of urban residents.

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In conformity with Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 Dr. T. K. Martin, Vice President, 610 Allen Hall, P. O. Drawer J, Mississippi State, Mississippi 39762, office telephone number 325-3221, has been designated as the responsible employee to coordinate efforts to carry out responsibilities and make investigation of complaints relating to nondiscrimination.

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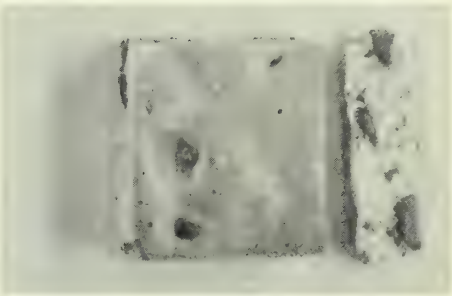
Bulletin 860 August 1977

Development and Acceptability of Four Protein-Fortified Foods to Supplement the Iranian School Lunch Program

Filled



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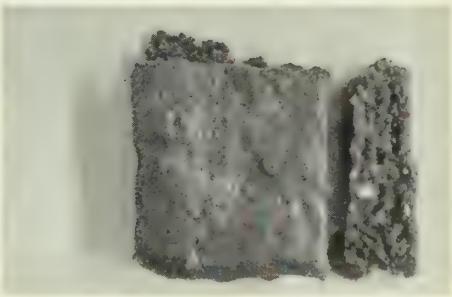

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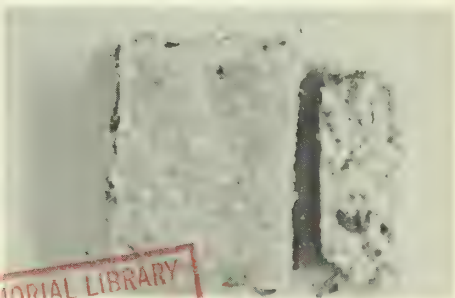

Oatmeal

Paula Howat, Assistant Home Economist, MAFES Department of Home Economics
Joe T. Cardwell, Dairyman and Organoleptologist, MAFES Dairy Science Department
James T. Marshall, Former Assistant Dairyman, MAFES Dairy Science Department
Stanley E. Rosenberger, Manager and Sales Promotion Specialist, Food and Fiber Center, Mississippi Cooperative Extension Service
Gale Ammerman, Food Technologist, MAFES Horticulture Department
Gladden M. Brooks, Food Technologist, Food and Fiber Center, Mississippi Cooperative Extension Service
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Mississippi State University, Mississippi State, MS 39762

The following personnel of Mississippi State University collaborated in development and evaluation of the products:

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Development and Acceptability of Four Protein-Fortified Foods to Supplement the Iranian School Lunch Program

Daily caloric intake of Iranians tends to be low by United States standards.[1]. Surveys have indicated that average daily per capita caloric intake is about 2,450 kilocalories---less than is recommended for adult males.[2] Only 55% of Iranian households were able to meet minimum caloric requirements, and per capita levels of consumption appear to differ by locale and environment, being lower in cities than in rural areas and decreasing about 10% in rural areas in winter because of food shortages caused by lack of preservation facilities and transportation difficulties.

Malnutrition is not uncommon in Iran. Food grains and cereal products provide a substantial part of caloric and protein intake. The protein consumed in Iran may be of low biological value because of the low and/or deficient amino acid content of grains and cereals. Development of a protein-fortified food with the complementary essential amino acids of soybeans, peanuts, milk, whey and eggs would result in a source of protein more conducive to the promotion of growth and health of Iranian children.

Initiation of Project

The Governor of the State of Mississippi led a trade mission to several Middle East countries in spring 1975 and was made aware of a plan by the Iranian government to initiate a program to provide a protein-fortified food supplement to each of that country's 6 million school children 6 days each week of the 9-month school year. The Governor realized that part or all of the protein-fortified food supplement could be supplied by Mississippi farmers, with a 2-ounce portion served to this many children that often for that long requiring about 175 million pounds of raw materials each year. However, Iranian officials had made no decision as to product identity at that time.

The Governor called the Director of the Mississippi Cooperative Extension Service (MCES) on April 30, 1975 and requested that a committee of scientists meet with him on May 1. This committee was to evaluate the concept of developing high-protein foods that would meet the specifications established by Iranian government officials. Personnel of the MCES Food and Fiber Center[3] were assigned to work with the Governor on the project.

The directive from the Governor was to prepare several products according to specifications, to conduct tests for determining their acceptance, and to have products ready for evaluation by Iranian officials in a few weeks. Specifications to be met per serving (2-4 oz) of the protein-fortified products were to: (1) provide about

[1]*Economics Research Service, United States Department of Agriculture, Iranian Agricultural Production and Trade (ERS-Foreign 357)*

[2]*Based on recommended Dietary Allowances (revised 1973) and the Food and Agriculture Organization (1974) standards.*

[3]*The Food and Fiber Center was organized as part of the Cooperative Extension Service with specific responsibility for conducting programs for processors and handlers of agricultural products and for assisting in the development of new products and new industries for Mississippi. Food and Fiber Center personnel are drawn from different academic disciplines and are capable of working with agribusiness firms in all phases of business functions, including product technology, progress flow, material handling, management, marketing, finance and accounting.*

one third of a child's daily recommended dietary allowance of balanced protein, (2) provide 200-400 kilocalories and other essential nutrients, (3) remain acceptable for several months during transportation, storage and distribution, (4) endure rough handling at extreme temperatures, (5) require no refrigeration, (6) be individually wrapped for protection of the product, (7) be convenient to eat, (8) have a dry, non-sticky exterior without frosting, (9) have a sweet chocolate flavor, (10) be enjoyed by children, and (11) cost not more than 18 cents per serving delivered to children in Iran.

Nutritionists, food technologists and marketing specialists from the Mississippi Agricultural and Forestry Experiment Station (MAFES), MCES specialists and a number of Mississippi State University administrators participated.[4] Support was drawn from a number of departments---including Home Economics, Animal Science, Dairy Science, Poultry Science, Marketing, Food and Fiber, Horticulture, Information, and Research and Development.

Every effort was made to use available resources in develop products to satisfy Iranian f habits. Several Iranians enrol as students at Mississippi St University provided informat about food habits and participa in product evaluation. Additio information was supplied United States Department Agriculture, Foreign Agricultu Service employees who h traveled in Iran.

Product Development

Scientists from various departments submitted formulations to be evaluated tentatively for nutritional content, flavor, cost and suitability for shipping. Formulations were eliminated rapidly until four protein-fortified foods---a sweet potato wafer with a filling, a toffee bar, a brownie bar and an oatmeal bar---were selected for complete evaluation.

The sweetened bars were modeled after the American "Fudge Brownie". The filled wafer was shaped like the "Moon Pie". Ingredients used that were familiar to Iranians were wheat flour, milk solids other than whey, whole eggs, sweetening agents, nuts and flavorings (Table 1). Those ingredients less familiar to Iranians were soybean constituents, whey solids, oats, sweet potato, peanut butter and chocolate. Chocolate flavor in many Middle East countries has been simulated by use of carob, a leguminous bean with chocolate flavor but containing no chocolate.

All ingredients for each formulation of the filled wafer and the sweetened bars were weighed on a top-loading Mettler balance scale and mixed by a standardized procedure, using a 10-speed, Model K-45 Kitchen-Aid® mixer. Raw batter for the filled wafer was weighed, cut into 3-oz portions and baked in a conventional oven at 350°F for 12-15 minutes. The wafer was allowed to cool after removal from the oven and was weighed to determine cooked weight and amount of moisture lost during cooking. Raw batter for the sweetened bars was weighed, baked in a conventional oven at 325-350°F for 20-30 minutes, cooled, reweighed to determine cooked weight and moisture loss during cooking and then cut into 2-oz. portions.

The filled sweet potato wafer was prepared using a basic cookie recipe with part of the wheat flour replaced by sweet potatoes and soy flour. Soy flour was substituted (on a weight basis) at the rate of 16% of the wheat flour. The sweet potatoes were canned local Mississippi varieties. Spices were used to improve flavor.

Initial filling for the wafer consisted of peanut butter, honey and non-fat dry milk solids. Ingredients tried later included chocolate-flavored peanut butter, soy nuts, whey solids, corn syrup and oatmeal. All formulations were subjected to taste panel evaluations and fillings c taining flavored peanut butter, s nuts and oatmeal were eliminat

Cost of producing the fill could have been reduced by repl ing honey with corn syrup and n fat dry milk with whey solids (re prices of ingredients at the tim development were: corn syr 39¢/lb; Honey, 81¢/lb; wh 11¢/lb and NFDM, 60¢/l Therefore, a number of mulations were prepared from three basic ingredients, w different rates of substitution corn syrup for honey and wh solids for non-fat dry milk. Ta panelists preferred the filling w no corn syrup because sweetness of honey counterac the tartness of whey. Howeve filling containing some corn sy was acceptable to taste paneli and the final formulation consis of the three basic ingredients p corn syrup and whey solids.

Filling for the wafer was baked and ingredients were wei ed and mixed to obtain a consist cy that would spread on the wa The completed product consiste 1.32 oz. wafer and 0.66 oz. fillin

Variations of several ba cookie recipes were used in prep ing the toffee, brownie and oatm

[4]See inside front cover for a list of personnel who collaborated with the research team in developing a evaluating the products.

Table 1. Ingredients used and approximate percentage of ingredients indigenous to Mississippi in four protein-fortified foods prepared for Iranian school children by Mississippi State University, 1975.

TOFFEE BAR

Ingredients:

Semi-Sweet Chocolate Morsels
Corn Syrup
Flour, All Purpose, Enriched
Sugar, Brown
Margarine
Peanuts
Egg, Whole
Honey
Non-Fat Dry Milk Solids
Soy Concentrate
Butter Flavoring
Imitation Vanilla Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 41%

BROWNIE BAR

Ingredients:

Sugar, White, Granulated
Egg, Whole
Oil
Peanuts
Flour, All Purpose, Enriched
Corn Syrup
Soy Flour
Cocoa
Whey Solids
Non-Fat Dry Milk Solids
Imitation Vanilla Flavoring
Salt
Butter Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 46%

OATMEAL BAR

Ingredients:

Oats, Quick
Egg, Whole
Sugar, White, Granulated
Milk Chocolate Morsels
Sugar, Brown
Oil
Peanuts
Flour, All Purpose, Enriched
Corn Syrup
Non-Fat Dry Milk Solids
Soy Flour
Salt
Imitation Vanilla Flavoring
Butter Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 37%

SWEET POTATO WAFER WITH FILLING

Ingredients:

Sugar, White, Granulated
Sweet Potato
Soy Flour
Flour, All Purpose, Enriched
Egg, Whole
Vegetable Shortening
Vanilla Extract
Salt
Peanut Butter
Corn Syrup
Whey Solids
Non-Fat Dry Milk Solids
Honey

Total Mississippi Products 53%

bars. Protein content was increased by replacing part of the wheat flour with defatted soy flour, soy concentrate, non-fat dry milk and whey solids alone or in combination. Substitution with soy ingredients ranged (on a weight basis) from 21 to 51% of the wheat flour. Part of the sugar was replaced with other sweetening agents and traditional shortenings were replaced with a mixture of vegetable oils. Imitation flavorings were used rather than pure extracts. Using no liquid ingredients other than whole eggs, flavorings and limited quantities of honey or corn syrup resulted in a thick, dry batter; therefore, vegetable oil was added to improve handling and increase degree of unsaturation in 2 of the products.

The filled sweet potato wafers produced with the first combination of ingredients (Formulation 1) and the toffee bars, brownie bars and oatmeal bars produced with the first two combinations of ingredients (Formulation 1 and Formulation 2) failed to meet the specifications stipulated in the Governor's directive. However, evaluations of these formulations are presented below for future reference.

Formulation 1---Samples of each of the four protein-fortified foods produced with the first combinations of ingredients were wrapped in heat-sealable, coated cellophane and hermetically sealed in tin cans for storage at 100° F for 3 weeks, to simulate 3-months exposure to the Iranian climate. Also, duplicate samples were stored at room temperature (70° F). Sensory evaluations (using flavor profile, hedonic scale and ranking procedure) were made after 1, 2 and 3 weeks of storage. Deterioration in appearance and color (color fading and cracking) of each product had started after 7 days in storage and was appreciable after 35 days of storage (Figures 1, 2, 3 and 4). Sensory evaluation scores of each product also were low. Therefore, another combination of ingredients (Formulation 2) was used for each product.

Formulation 2---The major change from Formulation 1 to Formulation 2 of all products was the addition of whole egg and sweetening agents other than sugar in an attempt to avoid moisture loss. Also, five kinds of sweet potato wafers were produced ---plain, spiced and orange-flavored with filling; spiced and orange-flavored without filling. The filling was the same as that used in Formulation 1.

Two batches of each bar and of each kind of sweet potato wafer were baked---one with no additive; the other with a preservative,[5] an antioxidant[6] and an emulsifier.[7] Samples of each batch were wrapped in heat-sealable, coated cellophane and hermetically sealed in tin cans for storage at 100° F.[8]

Appearance and texture of the sweet potato wafers with additives were satisfactory after 7 days storage at 100° F (Figure 1) but t filled wafers without lecithin w dry and crumbly. Taste paneli flavor ratings were highest for t plain filled wafer, with the spic wafer in third place just behind t orange-flavored wafer.

The toffee, brownie and oatm bars without additives w crumbly after 17 days of storage 100° F (Figures 2,3 and 4). Textu and body of the bars with additiv were satisfactory after 17 days storage at this temperature. T addition of lecithin and whole eg no doubt influenced the resul They served as emulsifiers a caused better distribution shortening in the batter. Sens evaluations were genera satisfactory, but results of t evaluation and comments by ta panelists indicated a need additional minor modifications the formulation of the bars.

Formulation 3---The second co bination of ingredients used in t three bars was modified slight using results of the evaluation a comments of taste panelists as guide. Batches of each bar w baked and sealed for storage 100° F as were the bars of earl formulations. Appearance and t ture of the bars formulated wi additives were acceptable afte days of storage and there was lit or no crumbling or dryn (Figures 2,3 and 4). Flavor of bars was rated acceptable by ta panelists.

Product Evaluation

The Formulation 2 plain, spiced and orange-flavored sweet potato wafers with filling and the Formulation 3 oatmeal, toffee and brownie bars were selected f further evaluation before shipme

[5]*Potassium sorbate at 0.05% of total ingredient weight.*

[6]*Tenox 6® at 0.02% of total lipid weight.*

[7]*Sta-Sol (soy) Lecithin Concentrate® at 0.01% of shortening weight. This was not added to the sweet pot wafers.*

[8]*Appearance and sensory evaluation scores of the first formulation of each product were poorest for th stored at the higher temperature; consequently, no products of Formulation 2 or subsequent formulations w stored at room temperature.*

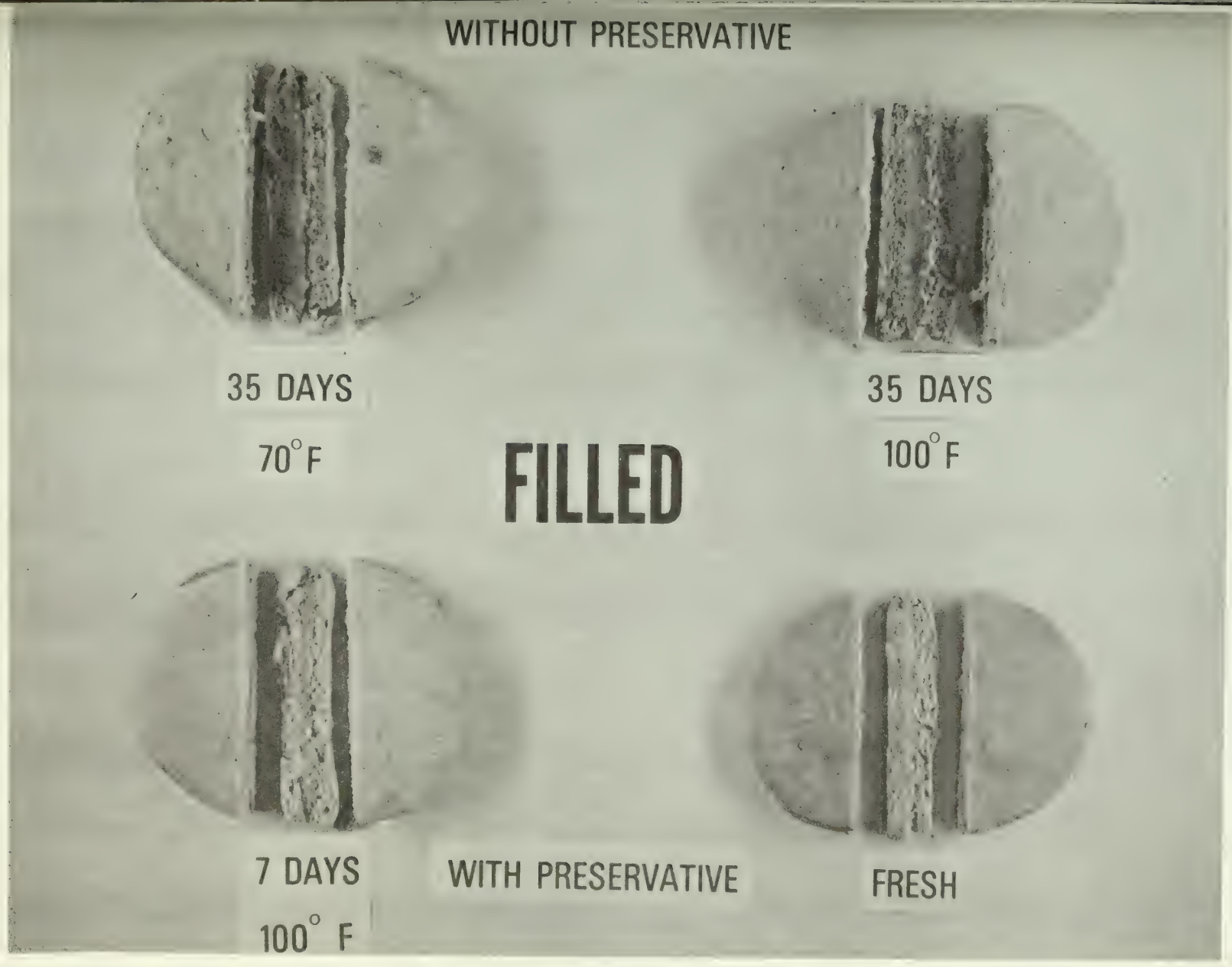

Figure 1. Formulations of the sweet potato wafer with a filling (first formulation photographed 35 days after baking, second formulation photographed 7 days after baking and immediately after baking).

Figure 2. Three formulations of the toffee bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

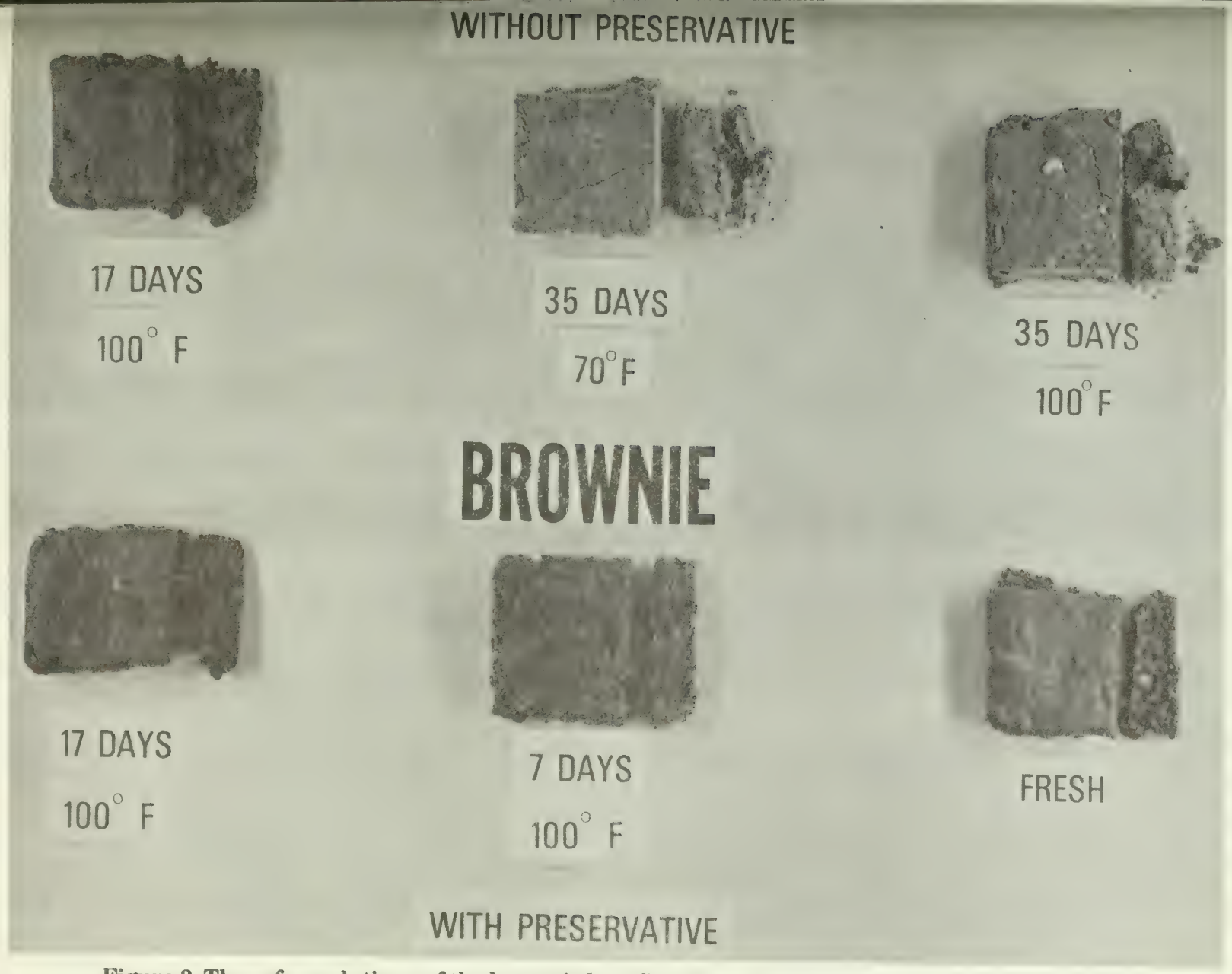

Figure 3. Three formulations of the brownie bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

Figure 4. Three formulations of the oatmeal bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

Table 2. Test panel rankings of the overall eating quality of protein-fortified toffee, oatmeal and brownie bars and their nearest commercial facsimiles, after storage at 100° F for 1 and 3 weeks.

Product	Material Wrap[1]	Ranking[2]	
		After storage for	
		1 week	3 weeks
Protein-Fortified Toffee Bar[3]	Coated Cellophane	2.22	2.33
Protein-Fortified Oatmeal Bar	Coated Cellophane	2.44	3.78
Commercial Oatmeal Facsimile	*Original*	*4.33*	*3.89*
Commercial Oatmeal Facsimile	*Coated Cellophane*	*3.56*	*4.00*
Protein-Fortified Brownie Bar	Coated Cellophane	4.89	4.56
Commercial Brownie Facsimile	*Original*	*5.00*	*5.00*
Commercial Brownie Facsimile	*Coated Cellophane*	*5.56*	*4.44*

[1] The commercial facsimiles in their original wrap and wrapped in heat-sealable coated cellophane were hermetically sealed in tin cans.

[2] Lowest score indicates best overall quality characteristics.

[3] A commercial facsimile could not be obtained.

Iran. No change was made in the rmulation of the wafers and the ownie bar, but real chocolate orsels were substituted for the ocolate-flavored baking chips ed in the Formulation 3 toffee d oatmeal bars. All products re prepared with the additives ed in earlier formulations. tches of each product were ked, wrapped in heat-sealable, ated cellophane and hermetical- sealed in tin cans for storage at D° F.

Appearance and texture of each oduct immediately after baking re better (less dryness and mbliness) than for products of lier formulations (Figures 1, 2, 3 d 4). The wafers were dryer and re crumbly at the end of each ek of four weeks of storage. pearance and texture of the er products were satisfactory er four weeks of storage.

ensory evaluations were made each product after 1, 2, 3 and 4 eks of storage. A two-part luation procedure was used: (1) nparison of the overall eating quality of each protein-fortified bar with that of the nearest commercial facsimile and (2) determination of specified quality characteristics and overall eating quality of each protein-fortified bar and wafer, using a hedonic scale.

The protein-fortified toffee bar consistently ranked higher than all other products evaluated (Table 2); the commercial brownie and the protein-fortified brownie ranked lowest. All of the protein-fortified bars were rated about as good or superior to their commercial counterparts after 3 weeks of storage. All products in unsealed wrapping were extremely hard and dry after 3 weeks of storage. The taste panel ratings of overall eating quality of the protein-fortified products were highest for the toffee bars, followed in decreasing order by the brownie bar, the oatmeal bar and the spiced, plain and orange-flavored filled wafers (Table 3). Ratings of overall eating quality of the plain and spiced wafers were higher after 4 weeks of storage. Appearance, body and texture and mouthfeel of the brownie were rated as having improved with storage.

All sensory evaluations reported above were made by adult taste panelists.[9] However, the products tested were developed for feeding to Iranian school children. Therefore, sensory evaluations were conducted with two groups of children (1) day-care nursery children ranging in ages from 3 to 9 years and (2) 4-H Club members ranging in ages from 12 to 17 years.

The day-care nursery children were offered a 1¼-oz serving of the three bars and the spiced wafer on two successive days at the regular 9 AM and 3 PM snack times. A glass of beverage was offered with each serving and a different high-protein fortified product was served each time. Each child was given an evaluation form (Figure 5) and instructed to color the face that best expressed their feelings about the product.

The nursery teacher and one of the investigators helped the children check the appropriate

[9] *Some panelists were familiar with soy flavor, others were not.*

Table 3. Results of taste panel evaluations of protein-fortified products after 1 and 4 weeks of storage at 100° F.[1]

Product	Quality Characteristics									
	Appearance		Body & Texture		Mouthfeel		Flavor		Overall Eating Quality	
	After Storage for									
	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks
Bars:										
Brownie	4.63	5.26	5.31	5.46	4.88	5.33	4.63	4.53	5.00	4.80
Oatmeal	5.63	5.26	5.88	5.13	5.38	4.80	5.63	4.33	5.64	4.80
Toffee	5.88	5.73	5.88	5.53	5.88	5.40	5.75	4.46	5.86	4.86
Wafer with Filling:										
Plain	4.25	4.40	3.38	3.80	3.63	4.06	4.50	3.73	3.25	3.80
Spiced	4.38	4.53	3.25	3.86	3.88	4.20	4.50	4.26	3.79	3.93
Orange-flavored	3.88	4.40	2.88	3.80	3.50	4.33	4.63	3.60	4.00	3.46

[1]excellent = 7; very good = 6; good = 5; medium = 4; fair = 3; poor = 2; very poor = 1

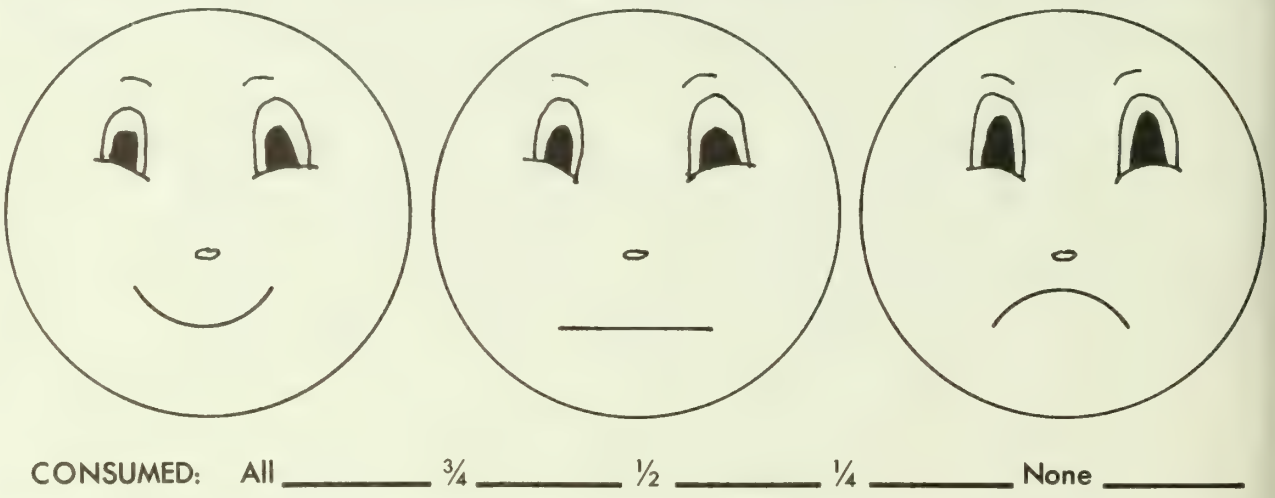

Figure 5. Sensory evaluation form used for children 3-9 years of age

Table 4. Evaluation of 4 protein-fortified foods by 3- to 9-year-old day-care nursery children

Product	Sample Size	Rating			Portion Consumed				
		Liked	Indifferent	Disliked	All	¾	½	¼	Non
	No.	%	%	%	No.	No.	No.	No.	No.
Oatmeal Bar	16	88	6	6.25	10	2	2	2	0
Brownie Bar	15	100	0	0	15	0	0	0	0
Toffee Bar	20	90	5	5.00	19	0	0	1	0
Spiced Wafer with Filling	19	89	10	0	18	0	1	0	0

blank at the bottom of the form. The children were not told what the products were or why they were served something different than the usual. The percentage of children indicating that they liked the products ranged from 88 for the oatmeal bar to 100 for the brownie bar (Table 4).

Table 5. Evaluation of 4 protein-fortified foods by 12- to 17-year-old 4-H Club members.

Reactions	Oatmeal	Brownie	Toffee	Spiced Wafer with filling
	%	%	%	%
I would frequently eat	28	28	24	0
I like and would eat now and then	28	12	32	20
Sub-Total	**56**	**40**	**56**	**20**
I would eat if available, but would not go out of my way	20	28	12	20
Sub-Total	**76**	**68**	**68**	**40**
I do not like, but would eat on occasion	8	4	24	16
I would hardly ever eat	16	28	8	44
Sub-Total	**24**	**32**	**32**	**60**

Table 6. Evaluation of 4 protein-fortified foods by 9- to 12-year-old students in 3 Iranian schools.[1]

Evaluation	Brownie	Toffee	Oatmeal	Filled Wafer
	%	%	%	%
Excellent	32	44	49	24
Good	18	29	24	24
Fair	30	17	13	22
Excellent good and fair	*80*	*90*	*86*	*70*
Bad	20	10	14	30

[1]**Frah City School, Tehran, Iran; Debestan Said Naficy School, 15 miles from Tehran, Iran; Dr. Reazazadeh Shangl School at Khoy, West Azarbajjan, Iran.**

The 4-H Club members were rved the three bars and the spiced afer at the same time and asked to licate how frequently they would t each. The percentage who nd the products acceptable, as licated by how often they would nsume them, ranged from 40 for e spiced filled wafer to 76 for the tmeal bar (Table 5).

Evaluation of the products by dy-care nursery children and 4-H ub members was completed in ptember 1975. Quantities of each oduct sufficient for evaluation by nian school children were bake wrapped, and labeled for shipnt. The Iranian government did n require nutritional information o the label; therefore, only the me of each product, ingredients ntained and the name of the veloper were listed.

The Governor organized and led another trade mission to the Middle East in October and scheduled a private conference for presenting samples of the products to the Prime Minister of Iran when in that country. Two members of the team (Ammerman and Rosenberger) helped with development of the products, participated in the trade mission and conducted taste panel tests with 9- to 12-year-old boys and girls in three Iranian schools---one urban, one suburban and one in a remote rural area.

The cookies were sampled by officials of the Iranian Government and were judged suitable for the school lunch program by the staff of the Ministry of Commerce and by Dr. Taranchi of the Institute of Nutrition. Taste panel tests were administered by the teacher in charge of each room, with the assistance of Iranian school officials.

Children in each room were presented the cookies and a form for checking their evaluation of them, but were not told that the cookies had been developed in and brought from the United States or that they were in any way unusual or different from snacks then being served in the school lunch program. They were instructed to evaluate the cookies by checking excellent, good, fair or bad on the form.

Data were tabulated with the help of one of the Iranians who had translated the form and helped administer the test. We were told by Iranian officials that cookies rated fair or better would be accepted by the children.

The percentage of Iranian children who rated the cookie

acceptable ranged from 70 for the spiced filled wafer to 90 for the toffee bar (Table 6). Results of the taste panel tests with Iranian children were very similar to those with United States children.[10]

Response of Iranian Government officials was positive and enthusiastic. The Governor was confident that a sale had been made and, after the trade mission returned to the United States, initiated a contract between the Mississippi Board of Trustees for Institutions of Higher Learn and a Mississippi company v experience in international tr The contract granted exclu domestic and international tribution rights to that compa

Nutritive Value of the Protein-Fortified Products

The calculated kilocalorie content of the protein-fortified products was 232, 226, 234 and 248 for the toffee bar, the brownie bar, the oatmeal bar and the filled wafer, respectively (Table 7). Calculated protein content ranged from 5.01 grams for the filled wafer to 5.96 grams for the oatmeal bar. All products contained an assortment of essential nutrients---calcium, phosphorus, iron, Vitamin A, Thiamin, riboflavin, niacin, Vitamin C, zinc and magnesium. The filled wafer contained an abundance of Vitamin A because of its sweet potato content.

All products were analyzed for protein and values were slightly higher than those calculated. Amino acid content (except for lysine and methionine) of the oatmeal bar compared favorably with that of whole egg and casein and was considerably higher than that of wheat flour, except for proline.

The protein-fortified brownie bar contained fewer kilocalories, less fat, and more protein than facsimiles with which it was compared---home recipe, commercially frozen, incomplete box mix to which eggs and nuts were to be added (Table 8). The prote fortified brownie could be u effectively in diets restrict saturated fats because its fat c tent was primarily poly saturated soy oil. Carbohydr content of the protein-forti brownie was lower than that most facsimilies and this could in preventing dental proble particularly if consumed daily children.

The protein supplied by a serving of the toffee, brownie oatmeal bars and the filled sw potato wafer would provide 2 24% of the Daily Recommen

Table 7. FAO recommended nutrient intake of a 7- to 9-year-old child and calculated nutrien content of a 2-oz portion of 4 protein-fortified foods.

Nutrient		FAO Standards for 7-9-year old[1]	Toffee	Brownie	Oatmeal	Filled Wafe
Kilocalories		2,190	231.78	225.97	234.45	247.50
Protein	g	25	5.32	5.34	5.96	5.01
Fat	g		11.76	10.05	10.61	6.50
Carbohydrate	g		29.78	31.10	30.74	34.01
Moisture	%		12.27	14.78	13.91	15.00
Calcium	mg	400-500	56.92	49.90	68.59	87.44
Phosphorus	mg		93.25	100.57	122.84	114.25
Iron	mg	5-10	1.30	1.21	1.42	1.03
Sodium	mg		56.92	83.34	82.72	330.72
Potassium	mg		159.46	160.80	195.65	118.42
Vitamin A	i.u.	1,333	270.36	103.39	102.12	595.96
Thiamin	mg	0.9	0.105	0.12	0.14	0.10
Riboflavin	mg	1.3	0.071	0.12	0.11	0.18
Niacin	mg	14.5	1.24	1.10	0.97	1.58
Vitamin C	mg	20	0.21	0.09	0.15	1.01
Zinc	mg		0.52	0.60	0.77	0.62
Magnesium	mg		32.91	35.63	36.27	38.84

[1]**Source: The Handbook of Human Nutritional Requirements, published by FAO and WH Rome, Italy, 1974.**

[10]*A detailed report of results of the evaluation is contained in MAFES Research Report, Vol. 2, No.*

Table 8. Calculated nutrient content of a 2-oz protein-fortified Brownie bar and selected facsimilies.

Nutrients	BROWNIE BARS			
	Protein-fortified	Home Recipe[1]	Frozen Commercial[2]	Incomplete Box Mix[3]
Kilocalories	225.97	269.00	238.00	243.00
Protein g	5.34	2.80	2.78	2.84
Fat g	10.05	17.00	12.00	11.00
Carbohydrate g	31.20	28.00	34.00	36.00
Calcium mg	49.90	23.00	23.00	26.00
Iron mg	1.21	1.13	0.85	1.13
Vitamin A i.u.	103.39	113.00	125.00	57.00
Thiamin mg	0.12	0.11	0.05	0.09
Riboflavin mg	0.12	0.056	0.05	0.06
Niacin mg	1.10	0.28	0.17	0.28
Ascorbic Acid mg	0.09	trace	trace	trace

[1]**Nutritive Value of Foods, Home and Garden Bulletin No. 72, U.S.D.A., 1971.**
[2]**Composition of Foods, Agriculture Handbook No. 8, U.S.D.A., 1963.**
[3]**Nutritive Value of American Foods in Common Units, Agriculture Handbook No. 456, U.S.D.A., 1975.**
Includes eggs and nuts in calculations.

Allowance for a 7- to 9-year-old child (Table 7). A 2-oz portion of the filled sweet potato wafer would supply about 45% of the daily Vitamin A requirements of children of this age. The protein efficiency ratio (PER) of all protein-fortified products should be conducive to promotion of growth of children.

Cost of Protein-Fortified Product

Based on wholesale prices of ingredients in May-August 1975, cost of producing a 2-oz portion of the toffee brownie and oatmeal bars and the filled sweet potato wafer was 3.74, 2.31, 3.05 and 4.00 cents, respectively (costs of additives and salt not included). Cost of each product was below the specified 18 cent maximum after adding estimates of labor, packaging and shipping costs.

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handicap.

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Dr. T. K. Martin, Vice President, 610 Allen Hall, P. O. Drawer J, Mississippi State, Mississippi 39762, office telephon
number 325-3221, has been designated as the responsible employee to coordinate efforts to carry out responsibilitie
and make investigation of complaints relating to nondiscrimination.

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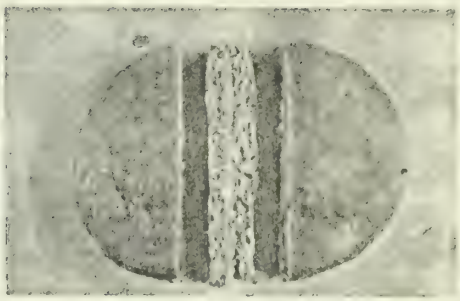
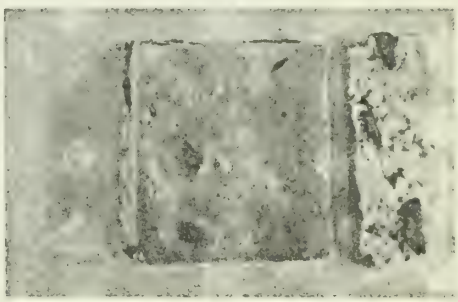
ulletin 860 August 1977

Development and Acceptability of Four Protein-Fortified Foods to Supplement the Iranian School Lunch Program



Filled



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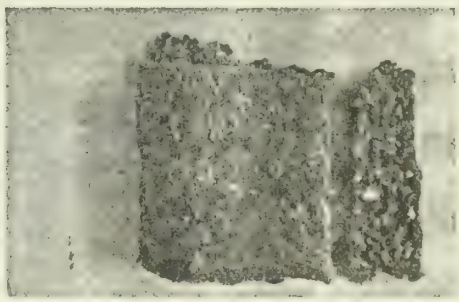
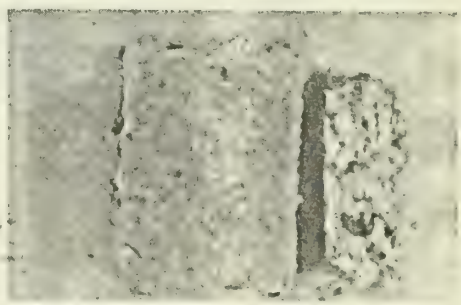


Brownie



Oatmeal

Pula Howat, Assistant Home Economist, MAFES Department of Home Economics
Je T. Cardwell, Dairyman and Organoleptologist, MAFES Dairy Science Department
Jmes T. Marshall, Former Assistant Dairyman, MAFES Dairy Science Department
Sanley E. Rosenberger, Manager and Sales Promotion Specialist, Food and Fiber Center, Mississippi Cooperative Extension Service
Gle Ammerman, Food Technologist, MAFES Horticulture Department
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MAFES

MISSISSIPPI AGRICULTURAL & FORESTRY EXPERIMENT STATION
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Development and Acceptability of Four Protein-Fortified Foods to Supplement the Iranian School Lunch Program

ily caloric intake of Iranians s to be low by United States dards.[1]. Surveys have in- ted that average daily per ta caloric intake is about 2,450 calories---less than is mmended for adult males.[2] y 55% of Iranian households e able to meet minimum caloric irements, and per capita levels nsumption appear to differ by le and environment, being lower in cities than in rural areas and decreasing about 10% in rural areas in winter because of food shortages caused by lack of preservation facilities and transportation difficulties.

Malnutrition is not uncommon in Iran. Food grains and cereal products provide a substantial part of caloric and protein intake. The protein consumed in Iran may be of low biological value because of the low and/or deficient amino acid content of grains and cereals. Development of a protein-fortified food with the complementary essential amino acids of soybeans, peanuts, milk, whey and eggs would result in a source of protein more conducive to the promotion of growth and health of Iranian children.

Initiation of Project

e Governor of the State of issippi led a trade mission to ral Middle East countries in ng 1975 and was made aware of n by the Iranian government itiate a program to provide a ein-fortified food supplement ch of that country's 6 million ol children 6 days each week of 9-month school year. The rnor realized that part or all of protein-fortified food supple- could be supplied by Mis- ppi farmers, with a 2-ounce on served to this many children that often for that long requiring about 175 million pounds of raw materials each year. However, Iranian officials had made no decision as to product identity at that time.

The Governor called the Director of the Mississippi Cooperative Extension Service (MCES) on April 30, 1975 and requested that a committee of scientists meet with him on May 1. This committee was to evaluate the concept of developing high-protein foods that would meet the specifications established by Iranian government officials. Personnel of the MCES Food and Fiber Center[3] were assigned to work with the Governor on the project.

The directive from the Governor was to prepare several products according to specifications, to conduct tests for determining their acceptance, and to have products ready for evaluation by Iranian officials in a few weeks. Specifications to be met per serving (2-4 oz) of the protein-fortified products were to: (1) provide about

Economics Research Service, United States Department of Agriculture, Iranian Agricultural Production Trade (ERS-Foreign 357)

Based on recommended Dietary Allowances (revised 1973) and the Food and Agriculture Organization 91) standards.

The Food and Fiber Center was organized as part of the Cooperative Extension Service with specific nsibility for conducting programs for processors and handlers of agricultural products and for assisting in elevelopment of new products and new industries for Mississippi. Food and Fiber Center personnel are n from different academic disciplines and are capable of working with agribusiness firms in all phases of ness functions, including product technology, progress flow, material handling, management, marketing, nce and accounting.

ird of a child's daily ended dietary allowance of d protein, (2) provide 200- calories and other essential ts, (3) remain acceptable for months during transporta- orage and distribution, (4) rough handling at extreme atures, (5) require no ation, (6) be individually d for protection of the , (7) be convenient to eat, (8) dry, non-sticky exterior frosting, (9) have a sweet te flavor, (10) be enjoyed by n, and (11) cost not more than 18 cents per serving delivered to children in Iran.

Nutritionists, food technologists and marketing specialists from the Mississippi Agricultural and Forestry Experiment Station (MAFES), MCES specialists and a number of Mississippi State University administrators participated.[4] Support was drawn from a number of departments---including Home Economics, Animal Science, Dairy Science, Poultry Science, Marketing, Food and Fiber, Horticulture, Information, and Research and Development.

Every effort was made to use all available resources in developing products to satisfy Iranian food habits. Several Iranians enrolled as students at Mississippi State University provided information about food habits and participated in product evaluation. Additional information was supplied by United States Department of Agriculture, Foreign Agricultural Service employees who had traveled in Iran.

Product Development

ntists from various ments submitted for- ns to be evaluated ten- for nutritional content, cost and suitability for ng. Formulations were ted rapidly until four fortified foods---a sweet wafer with a filling, a toffee rownie bar and an oatmeal ere selected for complete ion.

sweetened bars were after the American Brownie". The filled wafer aped like the "Moon Pie". ents used that were familiar ans were wheat flour, milk ther than whey, whole eggs, ing agents, nuts and gs (Table 1). Those in- ts less familiar to Iranians ybean constituents, whey bats, sweet potato, peanut and chocolate. Chocolate n many Middle East coun- s been simulated by use of a leguminous bean with te flavor but containing no te.

gredients for each formula- the filled wafer and the ed bars were weighed on a ing Mettler balance scale ixed by a standardized procedure, using a 10-speed, Model K-45 Kitchen-Aid® mixer. Raw batter for the filled wafer was weighed, cut into 3-oz portions and baked in a conventional oven at 350°F for 12-15 minutes. The wafer was allowed to cool after removal from the oven and was weighed to determine cooked weight and amount of moisture lost during cooking. Raw batter for the sweetened bars was weighed, baked in a conventional oven at 325-350°F for 20-30 minutes, cooled, reweighed to determine cooked weight and moisture loss during cooking and then cut into 2-oz. portions.

The filled sweet potato wafer was prepared using a basic cookie recipe with part of the wheat flour replaced by sweet potatoes and soy flour. Soy flour was substituted (on a weight basis) at the rate of 16% of the wheat flour. The sweet potatoes were canned local Mississippi varieties. Spices were used to improve flavor.

Initial filling for the wafer consisted of peanut butter, honey and non-fat dry milk solids. Ingredients tried later included chocolate-flavored peanut butter, soy nuts, whey solids, corn syrup and oatmeal. All formulations were subjected to taste panel evaluations and fillings containing flavored peanut butter, soy nuts and oatmeal were eliminated.

Cost of producing the filling could have been reduced by replacing honey with corn syrup and non-fat dry milk with whey solids (retail prices of ingredients at the time of development were: corn syrup, 39¢/lb; Honey, 81¢/lb; whey, 11¢/lb and NFDM, 60¢/lb). Therefore, a number of formulations were prepared from the three basic ingredients, with different rates of substitution of corn syrup for honey and whey solids for non-fat dry milk. Taste panelists preferred the filling with no corn syrup because the sweetness of honey counteracted the tartness of whey. However, a filling containing some corn syrup was acceptable to taste panelists and the final formulation consisted of the three basic ingredients plus corn syrup and whey solids.

Filling for the wafer was not baked and ingredients were weighed and mixed to obtain a consistency that would spread on the wafer. The completed product consisted of 1.32 oz. wafer and 0.66 oz. filling.

Variations of several basic cookie recipes were used in preparing the toffee, brownie and oatmeal

inside front cover for a list of personnel who collaborated with the research team in developing and ing the products.

Table 1. Ingredients used and approximate percentage of ingredients indigenous to Mississippi in four protein-fortified foods prepared for Iranian school children by Mississippi State University, 1975.

TOFFEE BAR

Ingredients:

Semi-Sweet Chocolate Morsels
Corn Syrup
Flour, All Purpose, Enriched
Sugar, Brown
Margarine
Peanuts
Egg, Whole
Honey
Non-Fat Dry Milk Solids
Soy Concentrate
Butter Flavoring
Imitation Vanilla Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 41%

BROWNIE BAR

Ingredients:

Sugar, White, Granulated
Egg, Whole
Oil
Peanuts
Flour, All Purpose, Enriched
Corn Syrup
Soy Flour
Cocoa
Whey Solids
Non-Fat Dry Milk Solids
Imitation Vanilla Flavoring
Salt
Butter Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 46%

OATMEAL BAR

Ingredients:

Oats, Quick
Egg, Whole
Sugar, White, Granulated
Milk Chocolate Morsels
Sugar, Brown
Oil
Peanuts
Flour, All Purpose, Enriched
Corn Syrup
Non-Fat Dry Milk Solids
Soy Flour
Salt
Imitation Vanilla Flavoring
Butter Flavoring
Lecithin
Potassium Sorbate
Tenox 6

Total Mississippi Products 37%

SWEET POTATO WAFER WITH FILLING

Ingredients:

Sugar, White, Granulated
Sweet Potato
Soy Flour
Flour, All Purpose, Enriched
Egg, Whole
Vegetable Shortening
Vanilla Extract
Salt
Peanut Butter
Corn Syrup
Whey Solids
Non-Fat Dry Milk Solids
Honey

Total Mississippi Products 53%

Protein content was in-
d by replacing part of the
flour with defatted soy flour,
ncentrate, non-fat dry milk
hey solids alone or in com-
on. Substitution with soy
lients ranged (on a weight
from 21 to 51% of the wheat
Part of the sugar was replac-
th other sweetening agents
raditional shortenings were
ced with a mixture of
able oils. Imitation flavorings
used rather than pure ex-
. Using no liquid ingredients
than whole eggs, flavorings
mited quantities of honey or
yrup resulted in a thick, dry
; therefore, vegetable oil was
l to improve handling and
se degree of unsaturation in
he products.

e filled sweet potato wafers
ced with the first combina-
f ingredients (Formulation 1)
he toffee bars, brownie bars
atmeal bars produced with
irst two combinations of in-
ents (Formulation 1 and For-
tion 2) failed to meet the
fications stipulated in the
rnor's directive. However,
ations of these formulations
presented below for future
ence.

rmulation 1---Samples of each
e four protein-fortified foods
ced with the first com-
ions of ingredients were
ped in heat-sealable, coated
hane and hermetically sealed
cans for storage at 100° F for 3 weeks, to simulate 3-months exposure to the Iranian climate. Also, duplicate samples were stored at room temperature (70° F). Sensory evaluations (using flavor profile, hedonic scale and ranking procedure) were made after 1, 2 and 3 weeks of storage. Deterioration in appearance and color (color fading and cracking) of each product had started after 7 days in storage and was appreciable after 35 days of storage (Figures 1, 2, 3 and 4). Sensory evaluation scores of each product also were low. Therefore, another combination of ingredients (Formulation 2) was used for each product.

Formulation 2---The major change from Formulation 1 to Formulation 2 of all products was the addition of whole egg and sweetening agents other than sugar in an attempt to avoid moisture loss. Also, five kinds of sweet potato wafers were produced ---plain, spiced and orange-flavored with filling; spiced and orange-flavored without filling. The filling was the same as that used in Formulation 1.

Two batches of each bar and of each kind of sweet potato wafer were baked---one with no additive; the other with a preservative,[5] an antioxidant[6] and an emulsifier.[7] Samples of each batch were wrapped in heat-sealable, coated cellophane and hermetically sealed in tin cans for storage at 100° F.[8]

Appearance and texture of the sweet potato wafers with additives were satisfactory after 7 days of storage at 100° F (Figure 1) but the filled wafers without lecithin were dry and crumbly. Taste panelists flavor ratings were highest for the plain filled wafer, with the spiced wafer in third place just behind the orange-flavored wafer.

The toffee, brownie and oatmeal bars without additives were crumbly after 17 days of storage at 100° F (Figures 2,3 and 4). Texture and body of the bars with additives were satisfactory after 17 days of storage at this temperature. The addition of lecithin and whole eggs no doubt influenced the results. They served as emulsifiers and caused better distribution of shortening in the batter. Sensory evaluations were generally satisfactory, but results of the evaluation and comments by taste panelists indicated a need for additional minor modifications in the formulation of the bars.

Formulation 3---The second combination of ingredients used in the three bars was modified slightly using results of the evaluation and comments of taste panelists as a guide. Batches of each bar were baked and sealed for storage at 100° F as were the bars of earlier formulations. Appearance and texture of the bars formulated with additives were acceptable after 7 days of storage and there was little or no crumbling or dryness (Figures 2,3 and 4). Flavor of the bars was rated acceptable by taste panelists.

Product Evaluation

e Formulation 2 plain, spiced
orange-flavored sweet potato wafers with filling and the Formulation 3 oatmeal, toffee and brownie bars were selected for further evaluation before shipment

Potassium sorbate at 0.05% of total ingredient weight.
Tenox 6® at 0.02% of total lipid weight.
Sta-Sol (soy) Lecithin Concentrate® at 0.01% of shortening weight. This was not added to the sweet
rs.
Appearance and sensory evaluation scores of the first formulation of each product were poorest for
d at the higher temperature; consequently, no products of Formulation 2 or subsequent formulations
d at room temperature.

Figure 1. Formulations of the sweet potato wafer with a filling (first formulation photographed 35 days after baking, second formulation photographed 7 days after baking and immediately after baking).

Figure 2. Three formulations of the toffee bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

WITHOUT PRESERVATIVE

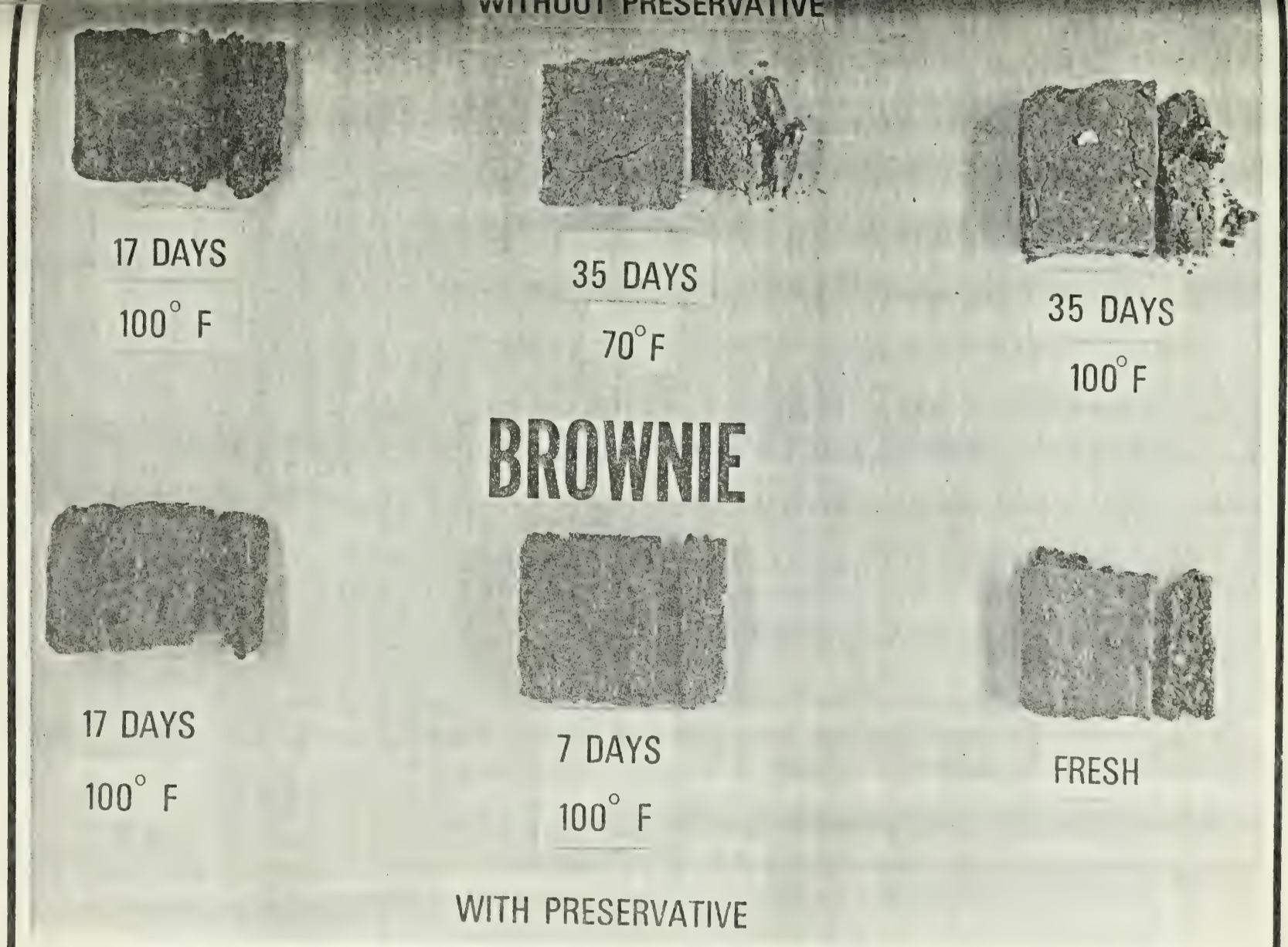


Figure 3. Three formulations of the brownie bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

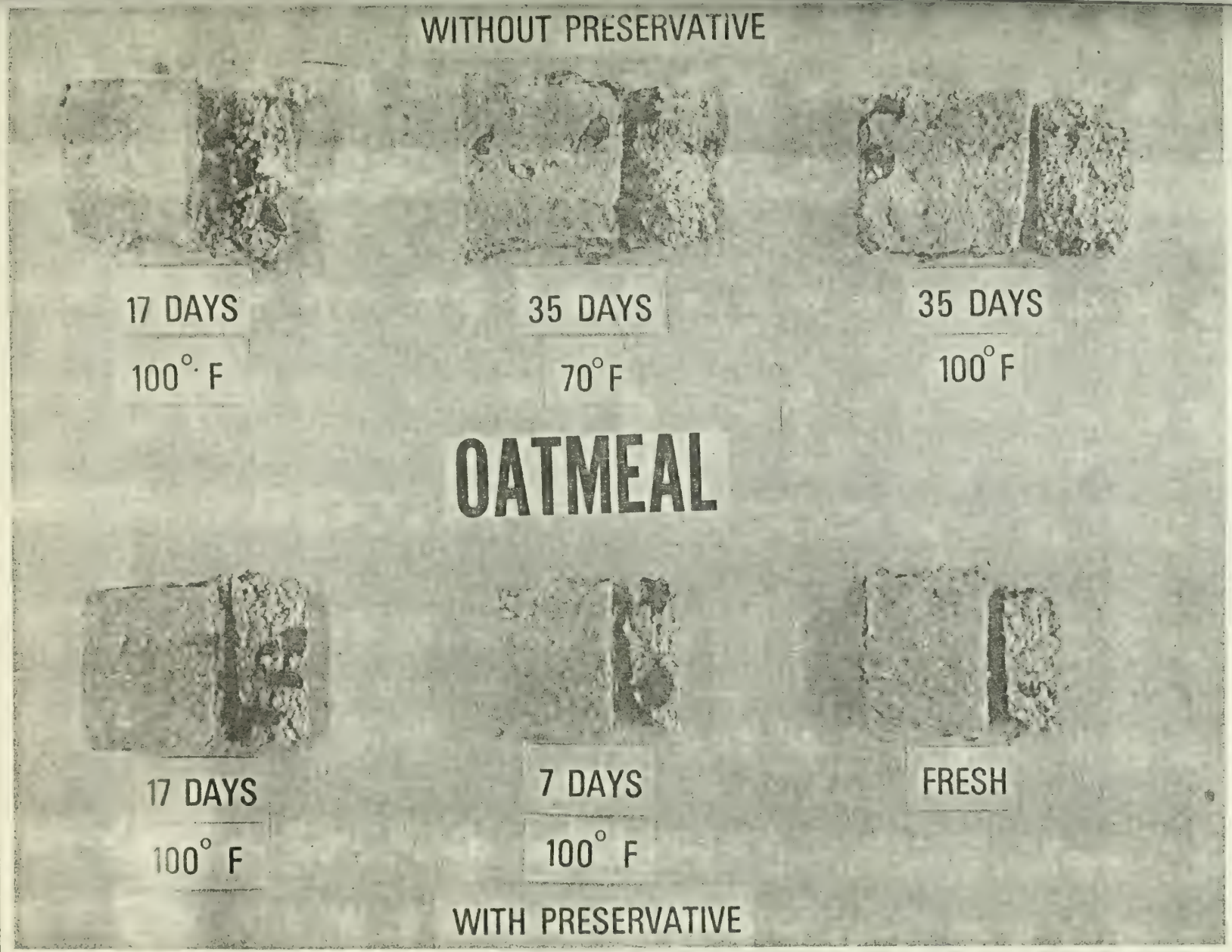


Figure 4. Three formulations of the oatmeal bar (first formulation photographed 35 days after baking, second formulation photographed 17 days after baking, third formulation photographed 7 days after baking and immediately after baking).

Table 2. Test panel rankings of the overall eating quality of protein-fortified toffee, oatmeal and brownie bars and their nearest commercial facsimiles, after storage at 100° F for 1 and 3 weeks.

Product	Material Wrap[1]	Ranking[2]	
		After storage for	
		1 week	3 weeks
Protein-Fortified Toffee Bar[3]	Coated Cellophane	2.22	2.33
Protein-Fortified Oatmeal Bar	Coated Cellophane	2.44	3.78
Commercial Oatmeal Facsimile	*Original*	*4.33*	*3.89*
Commercial Oatmeal Facsimile	*Coated Cellophane*	*3.56*	*4.00*
Protein-Fortified Brownie Bar	Coated Cellophane	4.89	4.56
Commercial Brownie Facsimile	*Original*	*5.00*	*5.00*
Commercial Brownie Facsimile	*Coated Cellophane*	*5.56*	*4.44*

[1] The commercial facsimiles in their original wrap and wrapped in heat-sealable coated cellophane were hermetically sealed in tin cans.

[2] Lowest score indicates best overall quality characteristics.

[3] A commercial facsimile could not be obtained.

o Iran. No change was made in the ormulation of the wafers and the rownie bar, but real chocolate norsels were substituted for the hocolate-flavored baking chips sed in the Formulation 3 toffee nd oatmeal bars. All products ere prepared with the additives sed in earlier formulations. atches of each product were aked, wrapped in heat-sealable, oated cellophane and hermetically sealed in tin cans for storage at 00° F.

Appearance and texture of each roduct immediately after baking ere better (less dryness and umbliness) than for products of arlier formulations (Figures 1, 2, 3 nd 4). The wafers were dryer and ore crumbly at the end of each eek of four weeks of storage. ppearance and texture of the her products were satisfactory fter four weeks of storage.

Sensory evaluations were made each product after 1, 2, 3 and 4 eeks of storage. A two-part aluation procedure was used: (1) mparison of the overall eating quality of each protein-fortified bar with that of the nearest commercial facsimile and (2) determination of specified quality characteristics and overall eating quality of each protein-fortified bar and wafer, using a hedonic scale.

The protein-fortified toffee bar consistently ranked higher than all other products evaluated (Table 2); the commercial brownie and the protein-fortified brownie ranked lowest. All of the protein-fortified bars were rated about as good or superior to their commercial counterparts after 3 weeks of storage. All products in unsealed wrapping were extremely hard and dry after 3 weeks of storage. The taste panel ratings of overall eating quality of the protein-fortified products were highest for the toffee bars, followed in decreasing order by the brownie bar, the oatmeal bar and the spiced, plain and orange-flavored filled wafers (Table 3). Ratings of overall eating quality of the plain and spiced wafers were higher after 4 weeks of storage. Appearance, body and texture and mouthfeel of the brownie were rated as having improved with storage.

All sensory evaluations reported above were made by adult taste panelists.[9] However, the products tested were developed for feeding to Iranian school children. Therefore, sensory evaluations were conducted with two groups of children (1) day-care nursery children ranging in ages from 3 to 9 years and (2) 4-H Club members ranging in ages from 12 to 17 years.

The day-care nursery children were offered a 1¼-oz serving of the three bars and the spiced wafer on two successive days at the regular 9 AM and 3 PM snack times. A glass of beverage was offered with each serving and a different high-protein fortified product was served each time. Each child was given an evaluation form (Figure 5) and instructed to color the face that best expressed their feelings about the product.

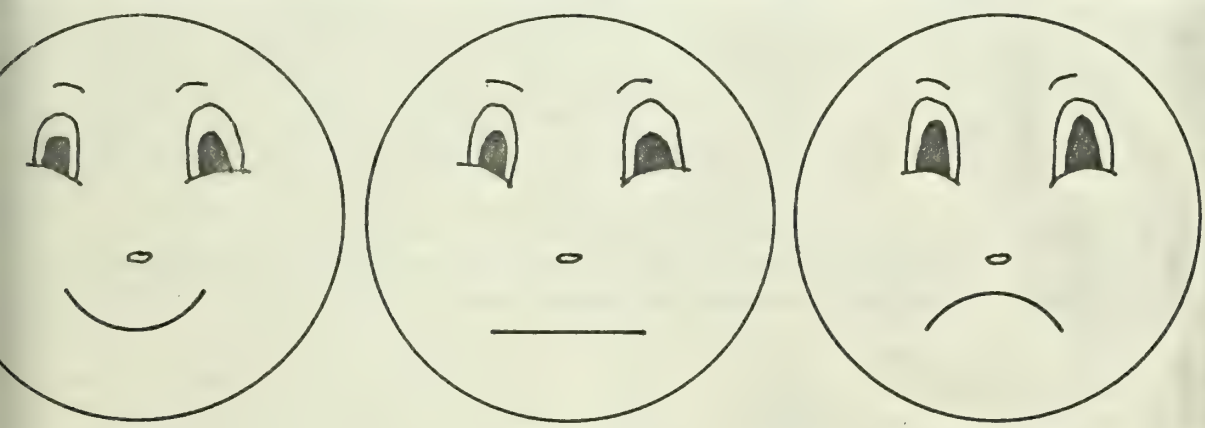
The nursery teacher and one of the investigators helped the children check the appropriate

[9] *Some panelists were familiar with soy flavor, others were not.*

. Results of taste panel evaluations of protein-fortified products after 1 and 4 weeks of storage F.[1]

t	Quality Characteristics									
	Appearance		Body & Texture		Mouthfeel		Flavor		Overall Eating Quality	
	After Storage for									
	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks	1 week	4 weeks
nie	4.63	5.26	5.31	5.46	4.88	5.33	4.63	4.53	5.00	4.80
eal	5.63	5.26	5.88	5.13	5.38	4.80	5.63	4.33	5.64	4.80
e	5.88	5.73	5.88	5.53	5.88	5.40	5.75	4.46	5.86	4.86
vith Filling:										
	4.25	4.40	3.38	3.80	3.63	4.06	4.50	3.73	3.25	3.80
d	4.38	4.53	3.25	3.86	3.88	4.20	4.50	4.26	3.79	3.93
ge-flavored	3.88	4.40	2.88	3.80	3.50	4.33	4.63	3.60	4.00	3.46

cellent = 7; very good = 6; good = 5; medium = 4; fair = 3; poor = 2; very poor = 1



ONSUMED: All _____ ¾ _____ ½ _____ ¼ _____ None _____

re 5. Sensory evaluation form used for children 3-9 years of age.

4. Evaluation of 4 protein-fortified foods by 3- to 9-year-old day-care nursery children.

t	Sample Size	Rating			Portion Consumed				
		Liked	Indifferent	Disliked	All	¾	½	¼	None
	No.	%	%	%	No.	No.	No.	No.	No.
l Bar	16	88	6	6.25	10	2	2	2	0
e Bar	15	100	0	0	15	0	0	0	0
Bar	20	90	5	5.00	19	0	0	1	0
Wafer with g	19	89	10	0	18	0	1	0	0

the bottom of the form. en were not told what the were or why they were served something different than the usual. The percentage of children indicating that they liked the products ranged from 88 for the oatmeal bar to 100 for the brownie bar (Table 4).

Table

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Table 5. Evaluation of 4 protein-fortified foods by 12- to 17-year-old 4-H Club members.

Reactions	Oatmeal	Brownie	Toffee	Spiced Wafer with filling
	%	%	%	%
I would frequently eat	28	28	24	0
I like and would eat now and then	28	12	32	20
Sub-Total	**56**	**40**	**56**	**20**
I would eat if available, but would not go out of my way	20	28	12	20
Sub-Total	**76**	**68**	**68**	**40**
I do not like, but would eat on occasion	8	4	24	16
I would hardly ever eat	16	28	8	44
Sub-Total	**24**	**32**	**32**	**60**

Table 6. Evaluation of 4 protein-fortified foods by 9- to 12-year-old students in 3 Iranian schools.[1]

Evaluation	Brownie	Toffee	Oatmeal	Filled Wafer
	%	%	%	%
Excellent	32	44	49	24
Good	18	29	24	24
Fair	30	17	13	22
Excellent good and fair	*80*	*90*	*86*	*70*
Bad	20	10	14	30

[1]**Frah City School, Tehran, Iran; Debestan Said Naficy School, 15 miles from Tehran, Iran; Dr. Reazazadeh Shangl School at Khoy, West Azarbajjan, Iran.**

The 4-H Club members were served the three bars and the spiced wafer at the same time and asked to indicate how frequently they would eat each. The percentage who found the products acceptable, as indicated by how often they would consume them, ranged from 40 for the spiced filled wafer to 76 for the oatmeal bar (Table 5).

Evaluation of the products by day-care nursery children and 4-H Club members was completed in September 1975. Quantities of each product sufficient for evaluation by Iranian school children were baked, wrapped, and labeled for shipment. The Iranian government did not require nutritional information on the label; therefore, only the name of each product, ingredients contained and the name of the developer were listed.

The Governor organized and led another trade mission to the Middle East in October and scheduled a private conference for presenting samples of the products to the Prime Minister of Iran when in that country. Two members of the team (Ammerman and Rosenberger) helped with development of the products, participated in the trade mission and conducted taste panel tests with 9- to 12-year-old boys and girls in three Iranian schools---one urban, one suburban and one in a remote rural area.

The cookies were sampled by officials of the Iranian Government and were judged suitable for the school lunch program by the staff of the Ministry of Commerce and by Dr. Taranchi of the Institute of Nutrition. Taste panel tests were administered by the teacher in charge of each room, with the assistance of Iranian school officials.

Children in each room were presented the cookies and a form for checking their evaluation of them, but were not told that the cookies had been developed in and brought from the United States or that they were in any way unusual or different from snacks then being served in the school lunch program. They were instructed to evaluate the cookies by checking excellent, good, fair or bad on the form.

Data were tabulated with the help of one of the Iranians who had translated the form and helped administer the test. We were told by Iranian officials that cookies rated fair or better would be accepted by the children.

The percentage of Iranian children who rated the cookie

acceptable ranged from 70 for the spiced filled wafer to 90 for the toffee bar (Table 6). Results of the taste panel tests with Iranian children were very similar to those with United States children.[10]

Response of Iranian Government officials was positive and enthusiastic. The Governor was confident that a sale had been made and, after the trade mission returned to the United States, initiated a contract between the Mississippi Board of Trustees for Institutions of Higher Learning and a Mississippi company with experience in international trade. The contract granted exclusive domestic and international distribution rights to that company.

Nutritive Value of the Protein-Fortified Products

The calculated kilocalorie content of the protein-fortified products was 232, 226, 234 and 248 for the toffee bar, the brownie bar, the oatmeal bar and the filled wafer, respectively (Table 7). Calculated protein content ranged from 5.01 grams for the filled wafer to 5.96 grams for the oatmeal bar. All products contained an assortment of essential nutrients---calcium, phosphorus, iron, Vitamin A, Thiamin, riboflavin, niacin, Vitamin C, zinc and magnesium. The filled wafer contained an abundance of Vitamin A because of its sweet potato content.

All products were analyzed for protein and values were slightly higher than those calculated. Amino acid content (except for lysine and methionine) of the oatmeal bar compared favorably with that of whole egg and casein and was considerably higher than that of wheat flour, except for proline.

The protein-fortified brownie bar contained fewer kilocalories, less fat, and more protein than facsimiles with which it was compared---home recipe, commercially frozen, incomplete box mix to which eggs and nuts were to be added (Table 8). The protein-fortified brownie could be used effectively in diets restricting saturated fats because its fat content was primarily polyunsaturated soy oil. Carbohydrate content of the protein-fortified brownie was lower than that of most facsimilies and this could aid in preventing dental problems, particularly if consumed daily by children.

The protein supplied by a 2-oz serving of the toffee, brownie and oatmeal bars and the filled sweet potato wafer would provide 20 to 24% of the Daily Recommended

Table 7. FAO recommended nutrient intake of a 7- to 9-year-old child and calculated nutrient content of a 2-oz portion of 4 protein-fortified foods.

Nutrient		FAO Standards for 7-9-year old[1]	Toffee	Brownie	Oatmeal	Filled Wafer
Kilocalories		2,190	231.78	225.97	234.45	247.50
Protein	g	25	5.32	5.34	5.96	5.01
Fat	g		11.76	10.05	10.61	6.50
Carbohydrate	g		29.78	31.10	30.74	34.91
Moisture	%		12.27	14.78	13.91	15.00
Calcium	mg	400-500	56.92	49.90	68.59	87.44
Phosphorus	mg		93.25	100.57	122.84	114.25
Iron	mg	5-10	1.30	1.21	1.42	1.03
Sodium	mg		56.92	83.34	82.72	330.72
Potassium	mg		159.46	160.80	195.65	118.42
Vitamin A	i.u.	1,333	270.36	103.39	102.12	595.96
Thiamin	mg	0.9	0.105	0.12	0.14	0.10
Riboflavin	mg	1.3	0.071	0.12	0.11	0.18
Niacin	mg	14.5	1.24	1.10	0.97	1.58
Vitamin C	mg	20	0.21	0.09	0.15	1.01
Zinc	mg		0.52	0.60	0.77	0.62
Magnesium	mg		32.91	35.63	36.27	38.84

[1]**Source: The Handbook of Human Nutritional Requirements, published by FAO and WHO, Rome, Italy, 1974.**

[10]*A detailed report of results of the evaluation is contained in MAFES Research Report, Vol. 2, No. 1*

ble 8. Calculated nutrient content of a 2-oz protein-fortified Brownie bar and selected csimilies.

	BROWNIE BARS			
trients	Protein-fortified	Home Recipe[1]	Frozen Commercial[2]	Incomplete Box Mix[3]
localories	225.97	269.00	238.00	243.00
otein g	5.34	2.80	2.78	2.84
t g	10.05	17.00	12.00	11.00
rbohydrate g	31.20	28.00	34.00	36.00
lcium mg	49.90	23.00	23.00	26.00
n mg	1.21	1.13	0.85	1.13
tamin A i.u.	103.39	113.00	125.00	57.00
iamin mg	0.12	0.11	0.05	0.09
oflavin mg	0.12	0.056	0.05	0.06
acin mg	1.10	0.28	0.17	0.28
corbic Acid mg	0.09	trace	trace	trace

[1]Nutritive Value of Foods, Home and Garden Bulletin No. 72, U.S.D.A., 1971.
[2]Composition of Foods, Agriculture Handbook No. 8, U.S.D.A., 1963.
[3]Nutritive Value of American Foods in Common Units, Agriculture Handbook No. 456, S.D.A., 1975.
Includes eggs and nuts in calculations.

vance for a 7- to 9-year-old (Table 7). A 2-oz portion of the sweet potato wafer would ly about 45% of the daily Vitamin A requirements of children of this age. The protein efficiency ratio (PER) of all protein-fortified products should be conducive to promotion of growth of children.

Cost of Protein-Fortified Product

sed on wholesale prices of dients in May-August 1975, of producing a 2-oz portion of coffee brownie and oatmeal bars and the filled sweet potato wafer was 3.74, 2.31, 3.05 and 4.00 cents, respectively (costs of additives and salt not included). Cost of each product was below the specified 18 cent maximum after adding estimates of labor, packaging and shipping costs.

Bulletin 861

Cost of Establishing and Maintaining Forage Crops in the Upper Coastal Plain Area of Mississippi, 1977

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Cost of Establishing and Maintaining Forage Crops in the Upper Coastal Plain Area of Mississippi, 1977

formation presented in is intended to help guide ducers in the evaluation tive forage crops. Con- f detailed forage budgets ividual situations is a first step.

graphic area to which the resented should apply tly is the Upper Coastal ea of Mississippi, as the cover. This area ds to Land Resource Area A set forth by the Soil ion Service, U. S. Depart- Agriculture; Mississippi Cooperative Extension Service; and Mississippi Agricultural and Forestry Experiment Station [7].[1] The Upper Coastal Plain is characterized by a topography that varies from level (generally in the bottomlands) to steep in the hill portions [5, 7]. Many of the rolling hills of the area are not suited for cultivation but can be productive as pasture for livestock.

Input costs and forage yields may vary from one situation to the next. Producers should recognize that budgets presented here are general and follow "recommended" practices for Mississippi, using input costs thought to be representative for the Upper Coastal Plain area. Adjustments for soil fertility, equipment size and condition, usual cultural practices and input prices may be necessary to more nearly reflect a particular situation.

The forage budgets presented cover: (1) production practices, (2) machinery and equipment costs, and (3) variable input costs other than machinery and equipment. A brief discussion of these components and how their costs were calculated follows.

Production Practices

on practices include types of fertilizer, her- d insecticides - as well as ural practices as land n, seeding methods, n and harvesting . Each production prac- ecisely specified for es- costs for each forage Requirements for land preparation, cultivation, fertilizer spreading, and other cultural practices were developed from Mississippi Agricultural and Forestry Experiment Station bulletins by Dillard, et al. [1], Smith, et al. [6], and Parvin, et al. [4]. Fertilizer rates were obtained from MAFES *1976 Crop and Fertilizer Guidelines for Mississippi* while herbicide rates were obtained from MAFES and MCES *1976 Weed Control Recommendations for Mississippi.* Dr. V. H. Watson, MAFES Agronomist, was consulted for recommendations specific to the study area. Summaries of fertilizer and seeding rates for the specified forage crops are given in Table 1.

bers in brackets refer to literature cited in the Bibliography.

Table 1. Seeding and fertilization rates for forage crops, Upper Coastal Plain of Mississippi, 1976.

Forage crop	Unit	Seeding rate[a] First crop	Seeding rate[a] Second crop	Fertilizer rate[a] N	P_2O_5	K_2O	Fertilizer (34-0-0)	Fertilizer (0-46-0)	Fertilizer (0-0-60)
							----------(cwt.)----------		
Grazed forage									
Ryegrass[b]	lb.	35	--	170	69	30	5	1.5	.5
Ryegrass-Clover[bc]	lb.	25	14	--	69	90	---	1.5	1.5
Ryegrass-Wheat[b]	lb.	25	90	170	69	30	5	1.5	.5
Wheat[b]	lb.	120	--	170	69	30	5	1.5	.5
Fescue-Clover[de]	lb.	15	3	--	69	60	---	1.5	1.0
Fescue[d]	lb.	20	--	102	46	60	3	1.0	1.0
Coastal[d]	bu.	20	--	170	46	60	5	1.0	1.0
Coastal-Clover[de]	bu./lb.	20	3	68	69	60	2	1.5	1.0
Coastal-Ryegrass[d]	bu./lb.	20	35	340	115	90	10	2.5	1.5
Dallisgrass[d]	lb.	10	--	136	46	30	4	1.0	.5
Dallis-Clover[de]	lb.	10	3	--	69	60	---	1.5	1.0
Common Bermuda[d]	lb.	5	--	150	46	30	4.5	1.0	.5
Common-Clover[de]	lb.	5	35	--	69	60	---	1.5	1.0
Common-Ryegrass[d]	lb.	5	--	275	115	60	8.0	2.5	1.0
Sorghum-Sudan[b]	lb.	35	---	170	69	60	5	1.5	1.0
Hay									
Coastal Bermuda[d]	bu.	20	--	204	69	120	6.0	1.5	2.0
Common Bermuda[d]	lb.	5	--	170	46	60	5.0	1.0	1.0
Sorghum Sudan[b]	lb.	35	--	170	69	60	5.0	1.5	1.0
Silage									
Corn Silage[b]	lb.	14	--	170	69	90	5	1.5	1.5
Sorghum Silage[b]	lb.	8	--	150	69	90	4.5	1.5	1.5

[a] Bulletin 842, 1976 Crop and Fertilizer Guidelines for Mississippi.
[b] Annual
[c] Subterranean Clover
[d] Establishment and Maintenance
[e] White Clover

Machinery and Equipment Cost

Machinery and equipment include such items as tractors, implements, harvesting machinery, fertilizer spreaders, and spraying equipment. A machinery and equipment budget accompanies each forage budget and specifies each machine operation, equipment size category, month of operation, and variable and fixed costs associated with that operation.

Generally, it was assumed that the typical farm would have both a large tractor (90-100 horsepower) and a small tractor (45-55 horsepower). The associated equipment was similarly categorized to provide a "complement of machinery". Thus, in each machinery and equipment budget, Class 1 machinery is the 45-55 horsepower complement and Class 2 is the 90-100 horsepower complement.

Estimates of performance rates, length of life, average annual use, repairs, and prices, were adapted from Parvin, et al. [4,3] and Dillard et al. [1]. Additional price information was obtained from equipment dealers within the study area. This information is presented in Table 2.

e 2. Estimated power and machinery size, performance rates, estimated life, annual use, nase price, and repair cost, Upper Coastal Plain of Mississippi, 1977.

Item	Size	Performance rate	Length of life	Average annual use	Estimated 1977 price	Repair (percent of '77 price)
		(hr./acre)	(yrs.)	(hrs.)	(dollars)	(percent)
or (45-55 h.p.)	1	---	12	700	8,000 [a]	75
or (90-100 h.p.)	2	---	12	700	15,700 [b]	65
l Plow	12 ft.	.35	12	150	1,150 [b]	70
Harrow	14 ft.	.23	10	180	3,650 [b]	80
Bedder	4 row	.21	8	160	1,315 [b]	80
n Harrow	15 ft.	.10	10	200	885 [b]	75
packer	12 ft.	.24	12	100	2,460 [a]	50
drill	12 ft.	.20	10	100	2,825 [b]	70
y Mower	15 ft.	.20	10	200	2,710 [b]	40
y Spreader	---	.18	8	100	765 [b]	80
er	21 ft.	.40	8	200	1,120 [b]	100
utter-cond.	9 ft.	.15	8	200	4,200 [c]	100
Rake	8 ft. 6 in.	.40	8	200	1,300 [c]	80
d Hay Baler	---	.10	8	200	5,200 [c]	80
Mover	1 bale	.62	12	100	240 [c]	20
iler	2 row	.20	15	100	650 [b]	100
ate Seeder	---	.20	8	100	125 [c]	100
er	4 row	.22	10	150	3,640 [b]	70
er Preemerge	4 row	.94	10	150	3,855 [b]	70
e Harvester	2 row	.94	10	200	7,300 [b]	80
e Wagon	10 ton	---	15	200	3,945 [b]	60
Loader	---	.12	12	100	1,875 [b]	60
-Front Mount	---	.25	10	100	1,525 [b]	60
vator	4 row	.35	12	200	1,820 [b]	80
vator-Postemerge	4 row	.25	12	200	2,450 [b]	80
ress	4 row		10	150	1,370 [a]	70

976 prices [4] increased by 6.6 percent.
AFES Bulletin 850 [3]
ea dealers

(variable) costs were d as repair (percentage of) plus fuel (if the item is a Fixed cost was calculated ciation (price ÷ total use hours) plus interest [($\frac{price}{2}$ x .09) ÷ annual use hours]. Direct and fixed costs per acre were obtained by multiplying per hour costs by performance rates (number of hours required to cover one acre). Summaries of machinery and equipment costs *per hour* and *per acre* are given in Table 3.

Cost of Other Variable Inputs

ble costs other than y and equipment include e seed, herbicides, insec- interest on operating , and labor. Operating as charged at an annual ne percent for a period of ns. Monthly and annual labor requirements for each forage are detailed in Table 4. Prices used for variable inputs are given in Table 5.

Budgets presented for perennial forages are of two types: (1) establishment, and (2) maintenance. *Establishment* budgets include the costs of recommended seedbed preparation, fertilization, seeding, labor, and equipment expense. *Maintenance* budgets include annual costs of fertilization and other direct inputs, labor and equipment - along with a prorated portion of the

Table 3. Estimated power and machinery direct and fixed costs per hour and per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Direct Cost				Fixed Cost			
	Repair	Fuel	Total/hr.	Total/acre	Dep.	Int.	Total/hr.	Total/acre
	(dollars)							
Tractor (45-55 h.p.)	.71	.63	1.34	---	.95	.51	1.46	---
Tractor (90-100 h.p.)	1.21	1.24	2.45	---	1.87	1.01	2.88	---
Chisel Plow	.45	---	.45	.16	.64	.35	.99	.35
Disk Harrow	1.62	---	1.62	.37	2.03	.91	.294	.68
Disk Bedder	.82	---	.82	.17	1.02	.37	1.39	.29
Section Harrow	.18	---	.33	.03	.44	.20	.64	.06
Cultipacker	1.03	---	1.03	.25	2.05	1.11	3.16	.77
Grain drill	1.98	---	1.98	.48	2.83	1.27	4.10	.98
Rotary Mower	.54	---	.54	.11	1.36	.61	1.97	.39
Rotary Spreader	.77	---	.77	.15	.96	.34	1.30	.26
Sprayer	.70	---	.70	.13	.70	.25	.95	.17
Hay-cutter-cond.	2.63	---	2.63	1.05	2.63	.95	3.58	1.43
Hay Rake	.65	---	.65	.10	.81	.29	1.10	.17
Round Hay Baler	2.60	---	2.60	1.04	3.25	1.17	4.42	1.77
Hay Mover	.04	---	.04	.01	.20	.11	.31	.03
Subsoiler	.43	---	.43	.27	.43	.29	.72	.45
Tailgate Seeder	.16	---	.16	.03	.16	.06	.22	.04
Planter	1.69	---	1.69	.34	2.42	1.08	3.50	.70
Planter Preemerge	1.80	---	1.80	.40	2.56	1.15	3.71	.82
Silage Harvester	2.92	---	2.92	2.75	3.65	1.64	5.29	4.97
Silage Wagon	.79	---	.79	.74	1.32	.89	2.21	2.08
Front Loader	.94	---	.94	---	1.56	.84	2.40	---
Blade-Front Mount	.92	---	.92	---	1.53	.69	2.22	---
Cultivator	.61	---	.61	.15	.75	.41	1.96	.49
Cultivator-Postemerge	.81	---	.81	.28	1.02	.55	1.57	.55
Sidedress	.64	---	.64	.16	.91	.41	1.32	.33

stablishment cost (one-tenth).[2] udgets for annual forages (e.g., yegrass-wheat, sorghum-sudan, tc.) include both establishment nd maintenance costs. Where erennials are grown in combination with annuals (e.g., common bermuda-ryegrass) the basic perennial establishment budget is given first, followed by the forage combination budgets. Summaries of the estimated cost per acre for producing and maintaining the various forage crops are given in Table 6. Complete budgets for the selected forages are given in Tables 1A-12L.

Forage Production and Utilization

Forage production costs are very nportant in determining the rofitability of livestock enterrises. However, the amount and onthly distribution of forage roduction is also important. orages must be selected so that their production meets the nutrient requirements of the size and class animal being produced. A single forage may be sufficient to meet animal nutrient requirements, but more often a combination of forages designed to provide a more uniform flow of nutrients over a specified time period is more economical from both a production and utilization viewpoint. Therefore, it is advisable for producers to look not only at production costs for a particular

[2]*Perennial grasses are assumed to be re-established after 10 years.*

4. Estimated hours of labor required per acre for establishing and maintaining forage by month, Upper Coastal Plain of Mississippi.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
ss [a]			.25					.25	.80			.25	1.55
ss-Wheat [a]			.25					.25	1.15			.25	1.90
a			.25					.25	.90			.25	1.65
-Clover [b]								.35	.25	1.15			1.75
-Clover [c]			.25				.20		.25	.25			.95
b			.25					.35	.50	.65			1.75
c			.25				.20		.25				.70
ilage [a]			.50	1.05	.40			2.85	.35				5.15
m Silage [a]			.50	1.05	.40			2.85	.35				5.15
l-Bermuda [b]			.35	.75	1.00	.25							2.35
l-Bermuda [c]				.50		.25	.25	.25					1.25
l-Clover [c]					.25	.45	.25			.70			1.65
l-Ryegrass [c]			.25	.25	.25		.50		.25	.60		.25	2.35
m Sudan [a]				1.05		.25		.25					1.55
rass [b]			.35	1.30		.25							1.90
Clover [c]						.20	.25			.70			1.15
on Bermuda [b]			.35	1.30			.25						1.90
on Bermuda [c]				.25		.45		.20					.90
on B-Clover [c]						.20	.25			.70			1.15
on B-Ryegrass [c]			.25	.25		.45		.20		.60		.25	2.00
on Bermuda Early Ryegrass [c]			.25	.25		.45		.45	.60				1.75
l Hay [c]				.25		1.45	1.45	1.45	1.2				5.80
m Sudan Hay [a]				.25		1.45	1.45	1.45	1.2				5.80
on Bermuda Hay [c]				.25		1.45		1.45	1.2				4.35
nual													
ablishment													
intenance													

n but also at the distribu-
ry matter production of
orages. Estimates of
dry matter production for
forage crops were ob-
om Dr. V. H. Watson,
Agronomist, and are
in Table 7.

tes in Table 7 indicate the
monthly distribution of
r production for specified
forages. However, it should be recognized that these dry matter totals are based on clipping data---animals grazing these forages will not use all forage produced because of trampling, spot grazing, and spoilage. Therefore, use of some utilization factor to reflect the actual amount of forage consumption per acre is needed. A recent study in the Department of Agricultural Economics [2] used utilization factors of: (1) 50% for perennial pasture (e.g., coastal bermuda and fescue); (2) 65% for annual pastures (e.g., ryegrass and sorghum-sudan); (3) 80% for hay; and (4) 90% for silage. For example, Table 7 shows that fescue produces 1,100 lbs. of dry matter in April. If fescue is 50% utilized, animals grazing fescue would utilize 550 lbs. (1,100 x .50) of forage on a dry matter basis.

Use of Forage Budgets as Planning Aids

eceding discussion in-
me of the relevant con-
s in developing forage
and the overall forage
the producer who needs
neral estimate of the costs
of producing a particular forage, the budgets as presented should suffice. However, a producer who wants to plan a forage program or who needs a more precise estimate of forage production costs should closely examine and adjust equipment costs, production practices, other variable costs, and yield estimates to reflect his particular situation.

Table 5. Estimated seed, fertilizer, and chemical prices, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Price/unit
		(dollars)
Seed		
Ryegrass	lb.	.18
Regal White Clover	lb.	2.85
Wheat	lb.	.09
Subterranean Clover	lb.	1.10
Red Clover	lb.	1.32
Fescue	lb.	.36
Corn	lb.	.72
Sorghum	lb.	.49
Coastal Sprigs	bu.	.75
Sorghum Sudan	lb.	.28
Dallis (live/pure)	lb.	3.00
Pearl Millet	lb.	.38
Common Bermuda	lb.	1.68
Fertilizer		
Muriate of Potash (0-0-60)	cwt.	5.50
Triple Superphosphate (0-46-0)	cwt.	9.20
Ammonium Nitrate (34-0-0)	cwt.	6.35
Lime (spread)	cwt.	.39
0-24-24	cwt.	7.00
8-24-24	cwt.	7.75
13-13-13	cwt.	6.60
Chemicals		
2,4-D Amine	lb. (active)	1.99
Lasso (Alachlor)	lb. (active)	3.53
Princep 80W (Simazine)	lb. (active)	4.06
Bladex (Cyanazine)	lb. (active)	3.81
AAtrex (Atrazine)	lb. (active)	3.05
Lorox (linuron)	lb. (active)	7.78
Milogard (propazine)	lb. (active)	4.00
Banvel (dicamba)	lb. (active)	8.65
Weedmaster (2, 4-D + dicamba)	pt.	2.06
Paraquat	lb. (active)	19.98
Feed Additive		
Urea	lb.	.09
Limestone	lb.	.02

Table 6. Estimated maintenance cost per acre for selected forages, Upper Coastal Plain of Mississippi, 1977.

Forage	Cost/acre
Grazed forages	(dollar)
Ryegrass	75.26
Ryegrass-Clover	60.71
Ryegrass-Wheat	83.69
Wheat	80.57
Fescue	52.36
Fescue-Clover	41.82
Coastal-Bermuda	77.91
Coastal Bermuda-Clover	70.68
Coastal Bermuda-Ryegrass	143.03
Common Bermuda	59.88
Common Bermuda-Clover	46.78
Common-Bermuda Ryegrass	117.30
Common Bermuda-Early Seeded Ryegrass	130.59
Dallisgrass	67.48
Dallis-Clover	49.54
Sorghum-Sudan	81.79
Silages	
Corn	154.90
Sorghum	146.22
Hays	
Coastal Bermuda	150.74
Common Bermuda	111.61
Sorghum-Sudan	125.40

Table 7. Estimated dry matter production, by month, in pounds per acre for selected forages, Upper Coastal Plain of Mississippi.

Forage	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ryegrass	600	700	1,200	1,200	550							
Ryegrass-Clover		600	1,200	1,200	600							
Ryegrass-Wheat	600	700	1,200	1,200	550						750	650
Wheat			1,000	1,200	500						750	650
Fescue	150	150	500	1,100	1,000	600	200	200	250	350	300	200
Fescue-Clover	160	180	600	1,600	1,480	800	250	250	400	480	300	200
Coastal Bermuda				350	2,100	2,600	3,200	1,550	1,400	800		
Coastal-Clover		500	722	1,317	2,181	1,995	1,958	1,066	951	636	400	
Coastal-Ryegrass	275	500	900	1,038	1,460	1,779	2,714	1,266	951	492	275	275
Dallis-Clover	75	150	250	750	1,200	1,500	1,200	800	250	150	100	75
Common Bermuda				300	1,300	1,700	1,800	700	500	200		
Common-Ryegrass	275	500	900	1,038	1,100	1,500	1,700	600	450	150		
Common-Early Ryegrass	275	500	900	1,038	1,100	1,500	1,700	600				
Sorghum Sudan					1,000	2,500	2,800	2,800	1,000	600		
Coastal Bermuda Hay						4,000	3,200	1,550	1,440			
Common Bermuda Hay						3,000		2,500	1,200			
Sorghum Sudan Hay						3,500	2,800	2,800	1,000			
Corn Silage								9,100				
Sorghum Silage									10,500			

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7A-B.	Corn Silage	18-19
8A-B.	Sorghum Silage	20-21
9A-D.	Coastal Bermuda Pasture	22-24
9E-F.	Coastal Bermuda-Clover Pasture	25
9G-H.	Coastal Bermuda-Ryegrass Pasture	26-27
9I-J.	Coastal Bermuda Hay	28-29
10A-B.	Sorghum Sudan Pasture	30
10C-D.	Sorghum Sudan Hay	31-32
11A-D.	Dallisgrass Pasture	33-34
11E-F.	Dallisgrass-Clover Pasture	35
11G-H.	Dallisgrass-Ryegrass Pasture	36
11I-J.	Dallisgrass Hay	37-38
12A-D.	Common Bermuda Pasture	39-40
12E-F.	Common Bermuda-Clover Pasture	41
12G-H.	Common Bermuda-Ryegrass Pasture	42
12I-J.	Common Bermuda Hay	43-44
12K-L.	Common Bermuda-Early Seeded Ryegrass Pasture	45-46

Table 1A. Ryegrass Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.66	.39	2.60
Labor	Hr.	1.55	2.30	3.57
Tractor and Equipment	Acre	1.00	4.58	4.58
Int. on Op. Capital	Acre	1.00	2.94	2.94
Total Variable Expenses				$68.29
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.97	6.97
Total Fixed Expenses				$ 6.97
Total Specified Expenses				$75.26

Table 1B. Ryegrass Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 2A. Ryegrass - Clover Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	25.00	.18	4.50
Subterranean Clover	lb.	14.00	1.10	15.40
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.40	2.30	3.22
Tractor and Equipment	Acre	1.00	4.19	4.19
Int. on Op. Capital	Acre	1.00	2.34	2.34
Total Variable Expenses				$54.30
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.41	6.41
Total Fixed Expenses				$ 6.41
Total Specified Expenses				$60.71

Table 2B. Ryegrass - Clover Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Graindrill s/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20

Table 3A. Ryegrass - Wheat Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	25.00	.18	4.50
Wheat	lb.	90.00	.09	8.10
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	5.03	5.03
Int. on Op. Capitol	Acre	1.00	3.28	3.28
Total Variable Expenses				$76.18
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.51	7.51
Total Fixed Expenses				$ 7.51
Total Specified Expenses				$83.69

Table 3B. Ryegrass - Wheat Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 4A. Wheat Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Wheat	lb.	120.00	.09	10.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.65	2.30	3.80
Tractor and Equipment	Acre	1.00	4.73	4.73
Int. on Op. Capital	Acre	1.00	3.16	3.16
Total Variable Expenses				$73.39
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.18	7.18
Total Fixed Expenses				$ 7.18
Total Specified Expenses				$80.57

Table 4B. Wheat Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 5A. Fescue - Clover Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Fescue	lb.	15.00	.36	5.40
White Clover	lb.	3.00	2.85	8.55
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.75	2.30	4.03
Tractor and Equipment	Acre	1.00	5.21	5.21
Total Variable Expenses				$45.09
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.76	7.76
Total Fixed Expenses				$ 7.76
Total Specified Expenses				$52.85

Table 5B. Fescue - Clover Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Aug.	1	1.02	1.35	.35	.35
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Oct.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20

Table 5C. Fescue - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.00	2.85	2.85
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.95	2.30	2.19
Tractor and Equipment	Acre	1.00	2.46	2.46
Int. on Op. Capital	Acre	1.00	1.32	1.32
Total Variable Expenses				$30.72
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.43	3.43
Prorated Est. Cost	Acre	1.00	5.29	5.29
Int. on Est. Cost	Acre	1.00	2.38	2.38
Total Fixed Expenses				$11.10
Total Specified Expenses				$41.82

Table 5D. Fescue - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Mower	2	July	1	.74	1.11	.20	.20
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 6A. Fescue Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Fescue	lb.	20.00	.36	7.20
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	3.00	6.35	19.05
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.75	2.30	4.03
Tractor and Equipment	Acre	1.00	5.33	5.33
Total Variable Expenses				$52.91
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.98	7.98
Total Fixed Expenses				$ 7.98
Total Specified Expenses				$60.89

Table 6B. Fescue Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Aug.	1	1.02	1.35	.35	.35
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Oct.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 6C. Fescue Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	3.00	6.35	19.05
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.70	2.30	1.61
Tractor and Equipment	Acre	1.00	1.58	1.58
Int. on Op. Capital	Acre	1.00	1.78	1.78
Total Variable Expenses				$41.32
Fixed Expenses				
Tractor and Equipment	Acre	1.00	2.21	2.21
Prorated Est. Cost	Acre	1.00	6.09	6.09
Int. on Est. Cost	Acre	1.00	2.74	2.74
Total Fixed Expenses				$11.04
Total Specified Expenses				$52.36

Table 6D. Fescue Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Mower	2	July	1	.74	1.11	.20	.20
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 7A. Corn Silage: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Corn	lb.	14.00	.72	10.08
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Atrazine	lb.	4.50	3.05	13.73
Labor	Hr.	5.15	2.30	11.85
Limestone	lb.	130.00	.02	2.60
Urea	lb.	130.00	.09	11.70
Tractor and Equipment	Acre	1.00	17.55	17.55
Int. on Op. Capital	Acre	1.00	5.58	5.58
Total Variable Expenses				$129.49
Fixed Expenses				
Tractor and Equipment	Acre	1.00	25.41	25.41
Total Fixed Expenses				$ 25.41
Total Specified Expenses				$154.90

Table 7B. Corn Silage: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Sept.	1	1.02	1.35	.35	.35
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Bedder	2	Apr.	1	.69	.90	.21	.21
Planter Pre-emerge	2	Apr.	1	.94	1.45	.25	.22
Cultivate Side-dress	2	Apr.	1	.92	1.54	.30	.25
Cultivate Post-emerge	2	May	1	1.14	1.56	.40	.35
Silage Harvestor	2	Aug.	1	5.08	7.68	.94	.94
Silage Wagon	2	Aug.	1	3.04	4.79	.94	.94
Silage Packer	2	Aug.	1	2.30	2.71	.94	.94

Table 8A. Sorghum Silage (Intermediate): Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum	lb.	8.00	.49	3.92
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	4.50	6.35	28.58
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Propazine	lb.	2.60	4.00	10.40
Dicamba	lb.	.25	8.65	2.16
Labor	Hr.	5.15	2.30	11.85
Limestone	lb.	150.00	.02	3.00
Urea	lb.	150.00	.09	13.50
Tractor and Equipment	Acre	1.00	17.55	17.55
Int. on Op. Capital	Acre	1.00	5.20	5.20
Total Variable Expenses		1.00		$120.81
Fixed Expenses				
Tractor and Equipment	Acre	1.00	25.41	25.41
Total Fixed Expenses				$ 25.41
Total Specified Expenses				$146.22

Table 8B. Sorghum Silage (Intermediate): Estimated labor and eqiupment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Sept.	1	1.02	1.35	.35	.35
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Bedder	2	May	1	.69	.90	.21	.21
Planter Pre-emerge	2	May	1	.94	1.45	.25	.22
Cultivate Side-dress	2	June	1	.92	1.54	.30	.25
Cultivate Post-emerge	2	June	1	1.14	1.56	.40	.35
Silage Harvestor	2	Sept.	1	5.08	7.68	.94	.94
Silage Wagon	2	Sept.	1	3.04	4.79	.94	.94
Silage Packer	2	Sept.	1	2.30	2.71	.94	.94

Table 9A. Coastal Bermuda Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Coastal Sprigs	bu.	20.00	.75	15.00
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Simazine	lb.	2.00	4.06	8.12
2, 4-D	lb.	1.50	1.99	2.99
Labor	Hr.	2.35	2.30	5.41
Custom Sprigging	Acre	1.00	15.00	15.00
Tractor and Equipment	Acre	1.00	6.55	6.55
Total Variable Expenses				$102.12
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.02	7.02
Total Fixed Expenses				$ 7.02
Total Specified Expenses				$109.14

Table 9B. Coastal Bermuda Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Sprig Coastal	1	May	1	1.75	.14	.50	.50
Cultipacker	1	May	1	.57	1.12	.24	.24
Sprayer	1	May	1	.37	.43	.25	.18
Rotary Spreader	1	June	1	.42	.55	.25	.20

Table 9C. Coastal Bermuda Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D + dicamba	pts.	1.50	2.06	3.09
Labor	Hr.	1.25	2.30	2.88
Tractor and Equipment	Acre	1.00	2.00	2.00
Int. on Op. Capital	Acre	1.00	2.57	2.57
Total Variable Expenses				$59.59
Fixed Expensee				
Tractor and Equipment	Acre	1.00	2.51	2.51
Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Prorated Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$18.32
Total Specified Expenses				$77.91

Table 9D. Coastal Bermuda Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Sprayer	1	Apr.	1	.37	.43	.25	.18
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	Aug.	1	.37	.43	.25	.18

Table 9E. Coastal Bermuda - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	2.00	6.35	12.70
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D	lb.	1.00	1.99	1.99
Labor	Hr.	1.65	2.30	3.80
Tractor and Equipment	Acre	1.00	3.41	3.41
Int. on Op. Capital	Acre	1.00	2.16	2.16
Total Variable Expenses				$50.24
Fixed Expenses				
Tractor and Equipment	Acre	1.00	4.63	4.63
Other Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$20.44
Total Specified Expenses				$70.68

Table 9F. Coastal Bermuda - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	May	1	.37	.43	.25	.18

Table 9G. Coastal Bermuda - Ryegrass Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	10.00	6.35	63.50
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D + dicamba	Pts.	1.50	2.06	3.09
Labor	Hr.	2.35	2.30	5.41
Tractor and Equipment	Acre	1.00	4.29	4.29
Int. on Op. Capital	Acre	1.00	5.19	5.19
Total Variable Expenses				$121.63
Fixed Expenses				
Tractor and Equipment	Acre	1.00	5.59	5.59
Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$ 21.40
Total Specified Expenses				$143.03

Table 9H. Coastal Bermuda - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Sprayer	1	Apr.	1	.37	.43	.25	.18
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	July	1	.37	.43	.25	.18
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 9I. Coastal Bermuda Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	2.00	5.50	11.00
Ammonium Nitrate	Cwt.	6.00	6.35	38.10
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	5.80	2.30	13.34
Tractor and Equipment	Acre	1.00	21.68	21.68
Int. on Op. Capital	Acre	1.00	4.17	4.17
Total Variable Expenses				$104.69
Fixed Expenses				
Tractor and Equipment	Acre	1.00	30.24	30.24
Other Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$ 46.05
Total Specified Expenses				$150.74

Table 9J. Coastal Bermuda Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	4	1.68	2.20	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Bale Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	July	1	1.59	2.01	.40	.40
Hay Rake	1	July	2	.60	.78	.30	.30
Hay Baler	2	July	1	2.55	3.90	.40	.40
Bale Mover	2	July	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 10A. Sorghum Sudan Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum Sudan	lb.	35.00	.28	9.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.55	2.30	3.57
Tractor and Equipment	Acre	1.00	4.58	4.58
Int. on Op. Capital	Acre	1.00	3.22	3.22
Total Variable Expenses				$74.82
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.97	6.97
Total Fixed Expenses				$ 6.97
Total Specified Expenses				$81.79

Table 10B. Sorghum Sudan Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Graindrill w/ Cultipacker	2	Apr.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Spreader	1	Aug.	1	.42	.55	.25	.20

Table 10C. Sorghum Sudan Hay: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum Sudan	lb.	35.00	.28	9.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	5.80	2.30	5.93
Tractor and Equipment	Acre	1.00	21.68	21.68
Int. on Op. Capital	Acre	1.00	4.10	4.10
Total Variable Expenses				$ 95.16
Fixed Expenses				
Tractor and Equipment	Acre	1.00	30.24	30.24
Total Fixed Expenses				$ 30.24
Total Specified Expenses				$125.40

Table 11A. Dallisgrass Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Dallis (liveseed)	lb.	10.00	3.00	30.00
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	4.88	4.88
Int. on Op. Capital	Acre	1.00	3.56	3.56
Total Variable Expenses				$82.76
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.99	6.99
Total Fixed Expenses				$ 6.99
Total Specified Expenses				$89.75

Table 11B. Dallisgrass Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1976.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Section Harrow	1	Apr.	1	.15	.21	.10	.10
Tailgate Seeder	1	Apr.	1	.30	.33	.25	.20
Cultipacker	1	Apr.	1	.57	1.12	.24	.24
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 11C. Dallisgrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.90	2.30	2.07
Tractor and Equipment	Acre	1.00	2.32	2.32
Int. on Op. Capital	Acre	1.00	2.20	2.20
Total Variable Expenses				$51.14
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.32	3.32
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$16.34
Total Specified Expenses				$67.48

Table 11D. Dallisgrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20

Table 11E. Dallisgrass - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.15	2.30	2.65
Tractor and Equipment	Acre	1.00	2.62	2.62
Int. on Op. Capital	Acre	1.00	1.42	1.42
Total Variable Expenses				$32.87
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.65	3.65
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$16.67
Total Specified Expenses				$49.54

Table 11F. Dallisgrass - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	2.00

Table 11G. Dallisgrass - Ryegrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi,1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	7.00	6.35	44.45
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	2.95	2.30	6.79
Tractor and Equipment	Acre	1.00	4.61	4.61
Int. on Op. Capital	Acre	1.00	4.20	4.20
Total Variable Expenses				$ 97.45
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.40	6.40
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$ 19.42
Total Specified Expenses				$116.87

Table 11H. Dallisgrass - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.25
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 11I. Dallisgrass Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	4.35	2.30	10.01
Tractor and Equipment	Acre	1.00	16.26	16.26
Int. on Op. Capital	Acre	1.00	3.39	3.39
Total Variable Expenses				$ 78.71
Fixed Expenses				
Tractor and Equipment	Acre	1.00	22.68	22.68
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$ 35.70
Total Specified Expenses				$114.41

Table 11J. Dallisgrass Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	3	1.26	1.65	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Hay Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 12A. Common Bermuda Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Common Bermuda	lb.	5.00	1.68	8.40
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.50	6.35	28.58
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	4.88	4.88
Int. on Op. Capital	Acre	1.00	2.74	2.74
Total Variable Expenses				$63.52
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.99	6.99
Total Fixed Expenses				$ 6.99
Total Specified Expenses				$70.51

Table 12B. Common Bermuda Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Section Harrow	1	Apr.	1	.15	.21	.10	.10
Tailgate Seeder	1	Apr.	1	.30	.33	.25	.20
Cultipacker	1	Apr.	1	.57	1.12	.24	.24
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 12C. Common Bermuda Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.90	2.30	2.07
Tractor and Equipment	Acre	1.00	2.32	2.32
Int. on Op. Capital	Acre	1.00	2.00	2.00
Total Variable Expenses				$46.34
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.32	3.32
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$13.54
Total Specified Expenses				$59.88

Table 12D. Common Bermuda Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20

Table 12E. Common Bermuda - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.15	2.30	2.65
Tractor and Equipment	Acre	1.00	2.62	2.62
Int. on Op. Capital	Acre	1.00	1.46	1.46
Total Variable Expenses				$32.91
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.65	3.65
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$13.87
Total Specified Expenses				$46.78

Table 12F. Common Bermuda - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 12G. Common Bermuda - Ryegrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	8.00	6.35	50.80
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	2.00	2.30	4.60
Tractor and Equipment	Acre	1.00	4.61	4.61
Int. on Op. Capital	Acre	1.00	4.38	4.38
Total Variable Expenses				$101.79
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.40	6.40
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 15.51
Total Specified Expenses				$118.41

Table 12H. Common Bermuda - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 12I. Common Bermuda Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	4.35	2.30	10.01
Tractor and Equipment	Acre	1.00	16.26	16.26
Int. on Op. Capital	Acre	1.00	3.39	3.39
Total Variable Expenses				$ 78.71
Fixed Expenses				
Tractor and Equipment	Acre	1.00	22.68	22.68
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 32.90
Total Specified Expenses				$111.61

Table 12J. Common Bermuda Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	3	1.26	1.65	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Bale Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 12K. Common Bermuda - Early Seeded Ryegrass Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	9.00	6.35	57.15
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Paraquat	lb.	.25	19.98	5.00
Labor	Hr.	2.25	2.30	5.18
Tractor and Equipment	Acre	1.00	4.98	4.98
Int. on Op. Capital	Acre	1.00	4.94	4.94
Total Variable Expenses				$114.65
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.83	6.83
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 15.49
Total Specified Expenses				$131.70

Table 12L. Common Bermuda - Early Seeded Ryegrass Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Sprayer	1	Sept.	1	.37	.43	.25	.20
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

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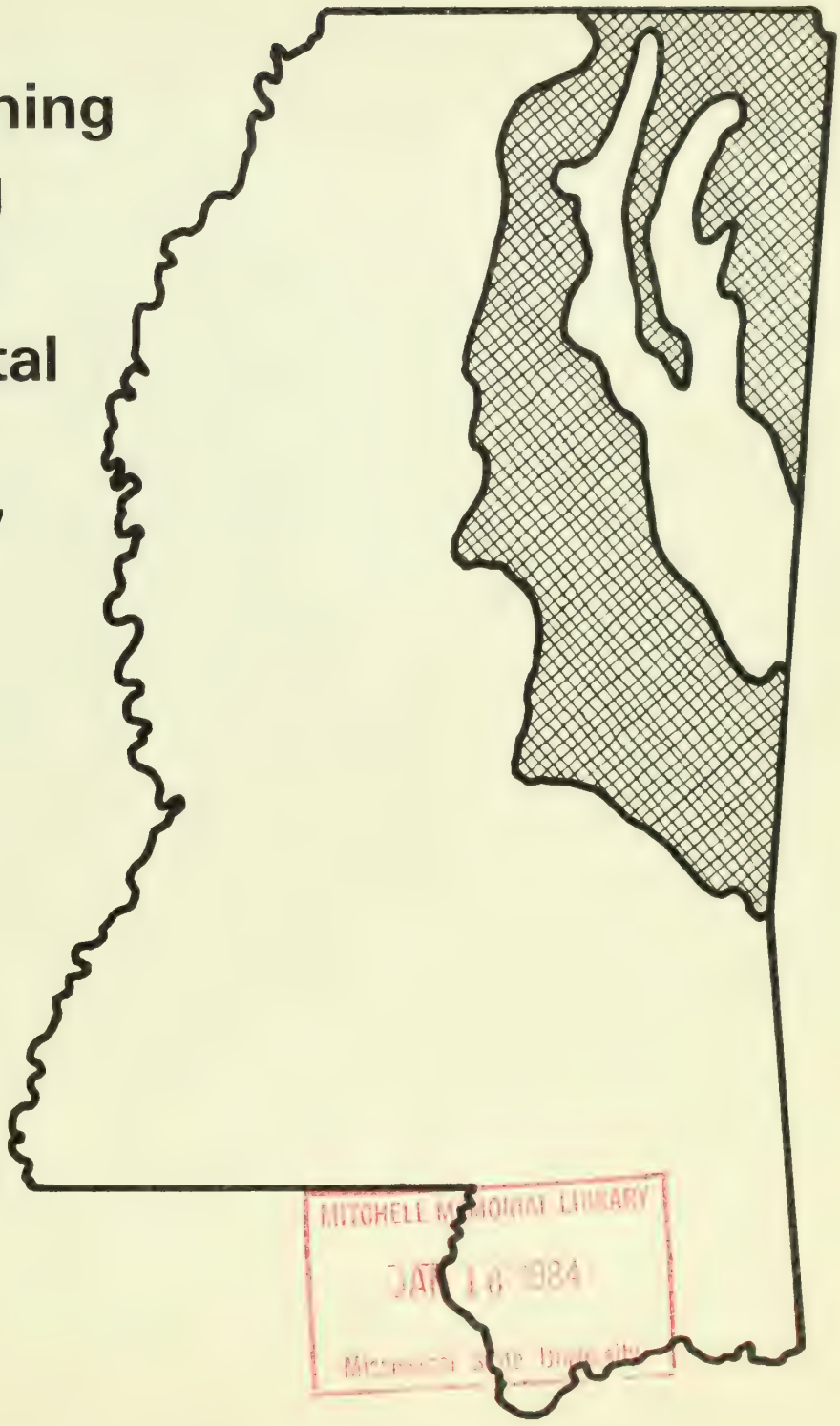

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Bulletin 861

Cost of Establishing and Maintaining Forage Crops in the Upper Coastal Plain Area of Mississippi, 1977

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Mississippi Agricultural and Forestry Experiment Station
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October 1977

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Cost of Establishing and Maintaining Forage Crops in the Upper Coastal Plain Area of Mississippi, 1977

The information presented in his report is intended to help guide attle producers in the evaluation f alternative forage crops. Con-ruction of detailed forage budgets fit individual situations is a ecessary first step.

The geographic area to which the udgets presented should apply ost directly is the Upper Coastal lain Area of Mississippi, as nown on the cover. This area rresponds to Land Resource Area RA) 133A set forth by the Soil onservation Service, U. S. Depart-ent of Agriculture; Mississippi Cooperative Extension Service; and Mississippi Agricultural and Forestry Experiment Station [7].[1] The Upper Coastal Plain is characterized by a topography that varies from level (generally in the bottomlands) to steep in the hill portions [5, 7]. Many of the rolling hills of the area are not suited for cultivation but can be productive as pasture for livestock.

Input costs and forage yields may vary from one situation to the next. Producers should recognize that budgets presented here are general and follow "recommended" practices for Mississippi, using input costs thought to be representative for the Upper Coastal Plain area. Adjustments for soil fertility, equipment size and condition, usual cultural practices and input prices may be necessary to more nearly reflect a particular situation.

The forage budgets presented cover: (1) production practices, (2) machinery and equipment costs, and (3) variable input costs other than machinery and equipment. A brief discussion of these components and how their costs were calculated follows.

Production Practices

Production practices include tes and types of fertilizer, her-cides, and insecticides - as well as ch cultural practices as land reparation, seeding methods, ltivation and harvesting rocedures. Each production prac-e is precisely specified for es-blishing costs for each forage terprise. Requirements for land preparation, cultivation, fertilizer spreading, and other cultural practices were developed from Mississippi Agricultural and Forestry Experiment Station bulletins by Dillard, et al. [1], Smith, et al. [6], and Parvin, et al. [4]. Fertilizer rates were obtained from MAFES *1976 Crop and Fertilizer Guidelines for Mississippi* while herbicide rates were obtained from MAFES and MCES *1976 Weed Control Recommendations for Mississippi.* Dr. V. H. Watson, MAFES Agronomist, was consulted for recommendations specific to the study area. Summaries of fertilizer and seeding rates for the specified forage crops are given in Table 1.

[1]*Numbers in brackets refer to literature cited in the Bibliography.*

Table 1. Seeding and fertilization rates for forage crops, Upper Coastal Plain of Mississipp 1976.

Forage crop	Unit	Seeding rate[a] First crop	Seeding rate[a] Second crop	Fertilizer rate[a] N	Fertilizer rate[a] P_2O_5	Fertilizer rate[a] K_2O	Fertilizer (34-0-0)	Fertilizer (0-46-0)	Fertilizer (0-0-6
							----------(cwt.)----------		
Grazed forage									
Ryegrass [b]	lb.	35	---	170	69	30	5	1.5	.5
Ryegrass-Clover [bc]	lb.	25	14	---	69	90	---	1.5	1.5
Ryegrass-Wheat [b]	lb.	25	90	170	69	30	5	1.5	.5
Wheat [b]	lb.	120	---	170	69	30	5	1.5	.5
Fescue-Clover [de]	lb.	15	3	---	69	60	---	1.5	1.0
Fescue [d]	lb.	20	---	102	46	60	3	1.0	1.0
Coastal [d]	bu.	20	---	170	46	60	5	1.0	1.0
Coastal-Clover [de]	bu./lb.	20	3	68	69	60	2	1.5	1.0
Coastal-Ryegrass [d]	bu./lb.	20	35	340	115	90	10	2.5	1.5
Dallisgrass [d]	lb.	10	---	136	46	30	4	1.0	.5
Dallis-Clover [de]	lb.	10	3	---	69	60	---	1.5	1.0
Common Bermuda [d]	lb.	5	---	150	46	30	4.5	1.0	.5
Common-Clover [de]	lb.	5	35	---	69	60	---	1.5	1.0
Common-Ryegrass [d]	lb.	5	---	275	115	60	8.0	2.5	1.0
Sorghum-Sudan [b]	lb.	35	---	170	69	60	5	1.5	1.0
Hay									
Coastal Bermuda [d]	bu.	20	---	204	69	120	6.0	1.5	2.0
Common Bermuda [d]	lb.	5	---	170	46	60	5.0	1.0	1.0
Sorghum Sudan [b]	lb.	35	---	170	69	60	5.0	1.5	1.0
Silage									
Corn Silage [b]	lb.	14	---	170	69	90	5	1.5	1.5
Sorghum Silage [b]	lb.	8	---	150	69	90	4.5	1.5	1.5

[a] Bulletin 842, 1976 Crop and Fertilizer Guidelines for Mississippi.
[b] Annual
[c] Subterranean Clover
[d] Establishment and Maintenance
[e] White Clover

Machinery and Equipment Cost

Machinery and equipment include such items as tractors, implements, harvesting machinery, fertilizer spreaders, and spraying equipment. A machinery and equipment budget accompanies each forage budget and specifies each machine operation, equipment size category, month of operation, and variable and fixed costs associated with that operation.

Generally, it was assumed that the typical farm would have both a large tractor (90-100 horsepower) and a small tractor (45-55 horsepower). The associated equipment was similarly categorized to provide a "complement of machinery". Thus, in each machinery and equipment budget, Class 1 machinery is the 45-55 horsepower complement and Class 2 is the 90-100 horsepower com ment.

Estimates of performance r length of life, average annual u repairs, and prices, were adap from Parvin, et al. [4,3] and Dilla et al. [1]. Additional pr information was obtained fr equipment dealers within the stu area. This information is presen in Table 2.

Table 2. Estimated power and machinery size, performance rates, estimated life, annual use, purchase price, and repair cost, Upper Coastal Plain of Mississippi, 1977.

Item	Size	Performance rate	Length of life	Average annual use	Estimated 1977 price	Repair (percent of '77 price)
		(hr./acre)	(yrs.)	(hrs.)	(dollars)	(percent)
Tractor (45-55 h.p.)	1	---	12	700	8,000 [a]	75
Tractor (90-100 h.p.)	2	---	12	700	15,700 [b]	65
Chisel Plow	12 ft.	.35	12	150	1,150 [b]	70
Disk Harrow	14 ft.	.23	10	180	3,650 [b]	80
Disk Bedder	4 row	.21	8	160	1,315 [b]	80
Section Harrow	15 ft.	.10	10	200	885 [b]	75
Cultipacker	12 ft.	.24	12	100	2,460 [a]	50
Grain drill	12 ft.	.20	10	100	2,825 [b]	70
Rotary Mower	15 ft.	.20	10	200	2,710 [b]	40
Rotary Spreader	---	.18	8	100	765 [b]	80
Sprayer	21 ft.	.40	8	200	1,120 [b]	100
Hay-cutter-cond.	9 ft.	.15	8	200	4,200 [c]	100
Hay Rake	8 ft. 6 in.	.40	8	200	1,300 [c]	80
Round Hay Baler	---	.10	8	200	5,200 [c]	80
Hay Mover	1 bale	.62	12	100	240 [c]	20
Subsoiler	2 row	.20	15	100	650 [b]	100
Tailgate Seeder	---	.20	8	100	125 [c]	100
Planter	4 row	.22	10	150	3,640 [b]	70
Planter Preemerge	4 row	.94	10	150	3,855 [b]	70
Silage Harvester	2 row	.94	10	200	7,300 [b]	80
Silage Wagon	10 ton	---	15	200	3,945 [b]	60
Front Loader	---	.12	12	100	1,875 [b]	60
Blade-Front Mount	---	.25	10	100	1,525 [b]	60
Cultivator	4 row	.35	12	200	1,820 [b]	80
Cultivator-Postemerge	4 row	.25	12	200	2,450 [b]	80
Sidedress	4 row		10	150	1,370 [a]	70

[a] 1976 prices [4] increased by 6.6 percent.
[b] MAFES Bulletin 850 [3]
[c] Area dealers

Direct (variable) costs were alculated as repair (percentage of ew cost) plus fuel (if the item is a ractor). Fixed cost was calculated s depreciation (price ÷ total use hours) plus interest [($\frac{price}{2}$ x .09) ÷ annual use hours]. Direct and fixed costs per acre were obtained by multiplying per hour costs by performance rates (number of hours required to cover one acre). Summaries of machinery and equipment costs *per hour* and *per acre* are given in Table 3.

Cost of Other Variable Inputs

Variable costs other than achinery and equipment include rtilizer, seed, herbicides, insec-cides, interest on operating apital, and labor. Operating apital was charged at an annual ate of nine percent for a period of ix months. Monthly and annual labor requirements for each forage are detailed in Table 4. Prices used for variable inputs are given in Table 5.

Budgets presented for perennial forages are of two types: (1) establishment, and (2) maintenance. *Establishment* budgets include the costs of recommended seedbed preparation, fertilization, seeding, labor, and equipment expense. *Maintenance* budgets include annual costs of fertilization and other direct inputs, labor and equipment - along with a prorated portion of the

Table 3. Estimated power and machinery direct and fixed costs per hour and per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Direct Cost				Fixed Cost			
	Repair	Fuel	Total/hr.	Total/acre	Dep.	Int.	Total/hr.	Total/acre
	(dollars)							
Tractor (45-55 h.p.)	.71	.63	1.34	---	.95	.51	1.46	---
Tractor (90-100 h.p.)	1.21	1.24	2.45	---	1.87	1.01	2.88	---
Chisel Plow	.45	---	.45	.16	.64	.35	.99	.35
Disk Harrow	1.62	---	1.62	.37	2.03	.91	.294	.68
Disk Bedder	.82	---	.82	.17	1.02	.37	1.39	.29
Section Harrow	.18	---	.33	.03	.44	.20	.64	.06
Cultipacker	1.03	---	1.03	.25	2.05	1.11	3.16	.77
Grain drill	1.98	---	1.98	.48	2.83	1.27	4.10	.98
Rotary Mower	.54	---	.54	.11	1.36	.61	1.97	.39
Rotary Spreader	.77	---	.77	.15	.96	.34	1.30	.26
Sprayer	.70	---	.70	.13	.70	.25	.95	.17
Hay-cutter-cond.	2.63	---	2.63	1.05	2.63	.95	3.58	1.43
Hay Rake	.65	---	.65	.10	.81	.29	1.10	.17
Round Hay Baler	2.60	---	2.60	1.04	3.25	1.17	4.42	1.77
Hay Mover	.04	---	.04	.01	.20	.11	.31	.03
Subsoiler	.43	---	.43	.27	.43	.29	.72	.45
Tailgate Seeder	.16	---	.16	.03	.16	.06	.22	.04
Planter	1.69	---	1.69	.34	2.42	1.08	3.50	.70
Planter Preemerge	1.80	---	1.80	.40	2.56	1.15	3.71	.82
Silage Harvester	2.92	---	2.92	2.75	3.65	1.64	5.29	4.97
Silage Wagon	.79	---	.79	.74	1.32	.89	2.21	2.08
Front Loader	.94	---	.94	---	1.56	.84	2.40	---
Blade-Front Mount	.92	---	.92	---	1.53	.69	2.22	---
Cultivator	.61	---	.61	.15	.75	.41	1.96	.49
Cultivator-Postemerge	.81	---	.81	.28	1.02	.55	1.57	.55
Sidedress	.64	---	.64	.16	.91	.41	1.32	.33

establishment cost (one-tenth).[2] Budgets for annual forages (e.g., ryegrass-wheat, sorghum-sudan, etc.) include both establishment and maintenance costs. Where perennials are grown in combination with annuals (e.g., common bermuda-ryegrass) the basic perennial establishment budget is given first, followed by the forage combination budgets. Summaries of the estimated cost per acre for producing and maintaining th various forage crops are given i Table 6. Complete budgets for th selected forages are given in Table 1A-12L.

Forage Production and Utilization

Forage production costs are very important in determining the profitability of livestock enterprises. However, the amount and monthly distribution of forage production is also important. Forages must be selected so that their production meets the nutrient requirements of the size and class animal being produced. A single forage may be sufficient to meet animal nutrient requirements, but more often a combination of forages designed to provide a more uniform flow of nutrients over specified time period is mor economical from both a productio and utilization viewpoin Therefore, it is advisable fo producers to look not only a production costs for a particula

[2]*Perennial grasses are assumed to be re-established after 10 years.*

Table 4. Estimated hours of labor required per acre for establishing and maintaining forage crops by month, Upper Coastal Plain of Mississippi.

Crop	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Ryegrass [a]			.25					.25	.80			.25	1.55
Ryegrass-Wheat [a]			.25					.25	1.15			.25	1.90
Wheat [a]			.25					.25	.90			.25	1.65
Fescue-Clover [b]								.35	.25	1.15			1.75
Fescue-Clover [c]			.25				.20		.25	.25			.95
Fescue [b]			.25					.35	.50	.65			1.75
Fescue [c]			.25				.20		.25				.70
Corn Silage [a]			.50	1.05	.40			2.85	.35				5.15
Sorghum Silage [a]			.50	1.05	.40			2.85	.35				5.15
Coastal-Bermuda [b]			.35	.75	1.00	.25							2.35
Coastal-Bermuda [c]				.50		.25	.25	.25					1.25
Coastal-Clover [c]					.25	.45	.25			.70			1.65
Coastal-Ryegrass [c]			.25	.25	.25		.50		.25	.60		.25	2.35
Sorghum Sudan [a]				1.05		.25		.25					1.55
Dallisgrass [b]			.35	1.30		.25							1.90
Dallis-Clover [c]						.20	.25			.70			1.15
Common Bermuda [b]			.35	1.30			.25						1.90
Common Bermuda [c]				.25		.45		.20					.90
Common B-Clover [c]						.20	.25			.70			1.15
Common B-Ryegrass [c]			.25	.25		.45		.20		.60		.25	2.00
Common Bermuda Early Ryegrass [c]			.25	.25		.45		.45	.60				1.75
Coastal Hay [c]				.25		1.45	1.45	1.45	1.2				5.80
Sorghum Sudan Hay [a]				.25		1.45	1.45	1.45	1.2				5.80
Common Bermuda Hay [c]				.25		1.45		1.45	1.2				4.35

[a] Annual
[b] Establishment
[c] Maintenance

rage plan but also at the distribu- on of dry matter production of ose forages. Estimates of verage dry matter production for pecified forage crops were ob- ined from Dr. V. H. Watson, IAFES Agronomist, and are resented in Table 7.

Estimates in Table 7 indicate the lative monthly distribution of y matter production for specified forages. However, it should be recognized that these dry matter totals are based on clipping data---animals grazing these forages will not use all forage produced because of trampling, spot grazing, and spoilage. Therefore, use of some utilization factor to reflect the actual amount of forage consumption per acre is needed. A recent study in the Department of Agricultural Economics [2] used utilization factors of: (1) 50% for perennial pasture (e.g., coastal bermuda and fescue); (2) 65% for annual pastures (e.g., ryegrass and sorghum-sudan); (3) 80% for hay; and (4) 90% for silage. For example, Table 7 shows that fescue produces 1,100 lbs. of dry matter in April. If fescue is 50% utilized, animals grazing fescue would utilize 550 lbs. (1,100 x .50) of forage on a dry matter basis.

Use of Forage Budgets as Planning Aids

The preceding discussion in- cates some of the relevant con- derations in developing forage dgets and the overall forage an. For the producer who needs ly a general estimate of the costs of producing a particular forage, the budgets as presented should suffice. However, a producer who wants to plan a forage program or who needs a more precise estimate of forage production costs should closely examine and adjust equipment costs, production practices, other variable costs, and yield estimates to reflect his particular situation.

Table 5. Estimated seed, fertilizer, and chemical prices, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Price/unit
		(dollars)
Seed		
Ryegrass	lb.	.18
Regal White Clover	lb.	2.85
Wheat	lb.	.09
Subterranean Clover	lb.	1.10
Red Clover	lb.	1.32
Fescue	lb.	.36
Corn	lb.	.72
Sorghum	lb.	.49
Coastal Sprigs	bu.	.75
Sorghum Sudan	lb.	.28
Dallis (live/pure)	lb.	3.00
Pearl Millet	lb.	.38
Common Bermuda	lb.	1.68
Fertilizer		
Muriate of Potash (0-0-60)	cwt.	5.50
Triple Superphosphate (0-46-0)	cwt.	9.20
Ammonium Nitrate (34-0-0)	cwt.	6.35
Lime (spread)	cwt.	.39
0-24-24	cwt.	7.00
8-24-24	cwt.	7.75
13-13-13	cwt.	6.60
Chemicals		
2,4-D Amine	lb. (active)	1.99
Lasso (Alachlor)	lb. (active)	3.53
Princep 80W (Simazine)	lb. (active)	4.06
Bladex (Cyanazine)	lb. (active)	3.81
AAtrex (Atrazine)	lb. (active)	3.05
Lorox (linuron)	lb. (active)	7.78
Milogard (propazine)	lb. (active)	4.00
Banvel (dicamba)	lb. (active)	8.65
Weedmaster (2, 4-D + dicamba)	pt.	2.06
Paraquat	lb. (active)	19.98
Feed Additive		
Urea	lb.	.09
Limestone	lb.	.02

Table 6. Estimated maintenance cost per acre for selected forages, Upper Coastal Plain of Mississippi, 1977.

Forage	Cost/acre
Grazed forages	(dollar)
Ryegrass	75.26
Ryegrass-Clover	60.71
Ryegrass-Wheat	83.69
Wheat	80.57
Fescue	52.36
Fescue-Clover	41.82
Coastal-Bermuda	77.91
Coastal Bermuda-Clover	70.68
Coastal Bermuda-Ryegrass	143.03
Common Bermuda	59.88
Common Bermuda-Clover	46.78
Common-Bermuda Ryegrass	117.30
Common Bermuda-Early Seeded Ryegrass	130.59
Dallisgrass	67.48
Dallis-Clover	49.54
Sorghum-Sudan	81.79
Silages	
Corn	154.90
Sorghum	146.22
Hays	
Coastal Bermuda	150.74
Common Bermuda	111.61
Sorghum-Sudan	125.40

able 7. Estimated dry matter production, by month, in pounds per acre for selected forages, pper Coastal Plain of Mississippi.

orage	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
yegrass	600	700	1,200	1,200	550							
yegrass-Clover		600	1,200	1,200	600							
yegrass-Wheat	600	700	1,200	1,200	550						750	650
Vheat			1,000	1,200	500						750	650
escue	150	150	500	1,100	1,000	600	200	200	250	350	300	200
escue-Clover	160	180	600	1,600	1,480	800	250	250	400	480	300	200
oastal Bermuda				350	2,100	2,600	3,200	1,550	1,400	800		
oastal-Clover		500	722	1,317	2,181	1,995	1,958	1,066	951	636	400	
oastal-Ryegrass	275	500	900	1,038	1,460	1,779	2,714	1,266	951	492	275	275
allis-Clover	75	150	250	750	1,200	1,500	1,200	800	250	150	100	75
ommon Bermuda				300	1,300	1,700	1,800	700	500	200		
ommon-Ryegrass	275	500	900	1,038	1,100	1,500	1,700	600	450	150		
ommon-Early Ryegrass	275	500	900	1,038	1,100	1,500	1,700	600				
orghum Sudan					1,000	2,500	2,800	2,800	1,000	600		
oastal Bermuda Hay						4,000	3,200	1,550	1,440			
ommon Bermuda Hay						3,000		2,500	1,200			
orghum Sudan Hay						3,500	2,800	2,800	1,000			
orn Silage								9,100				
orghum Silage									10,500			

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10C-D.	Sorghum Sudan Hay	31-32
11A-D.	Dallisgrass Pasture	33-34
11E-F.	Dallisgrass-Clover Pasture	35
11G-H.	Dallisgrass-Ryegrass Pasture	36
11I-J.	Dallisgrass Hay	37-38
12A-D.	Common Bermuda Pasture	39-40
12E-F.	Common Bermuda-Clover Pasture	41
12G-H.	Common Bermuda-Ryegrass Pasture	42
12I-J.	Common Bermuda Hay	43-44
12K-L.	Common Bermuda-Early Seeded Ryegrass Pasture	45-46

Table 1A. Ryegrass Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.66	.39	2.60
Labor	Hr.	1.55	2.30	3.57
Tractor and Equipment	Acre	1.00	4.58	4.58
Int. on Op. Capital	Acre	1.00	2.94	2.94
Total Variable Expenses				$68.29
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.97	6.97
Total Fixed Expenses				$ 6.97
Total Specified Expenses				$75.26

Table 1B. Ryegrass Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 2A. Ryegrass - Clover Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	25.00	.18	4.50
Subterranean Clover	lb.	14.00	1.10	15.40
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.40	2.30	3.22
Tractor and Equipment	Acre	1.00	4.19	4.19
Int. on Op. Capital	Acre	1.00	2.34	2.34
Total Variable Expenses				$54.30
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.41	6.41
Total Fixed Expenses				$ 6.41
Total Specified Expenses				$60.71

Table 2B. Ryegrass - Clover Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Graindrill s/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20

Table 3A. Ryegrass - Wheat Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	25.00	.18	4.50
Wheat	lb.	90.00	.09	8.10
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	5.03	5.03
Int. on Op. Capitol	Acre	1.00	3.28	3.28
Total Variable Expenses				$76.18
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.51	7.51
Total Fixed Expenses				$ 7.51
Total Specified Expenses				$83.69

Table 3B. Ryegrass - Wheat Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 4A. Wheat Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Wheat	lb.	120.00	.09	10.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.65	2.30	3.80
Tractor and Equipment	Acre	1.00	4.73	4.73
Int. on Op. Capital	Acre	1.00	3.16	3.16
Total Variable Expenses				$73.39
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.18	7.18
Total Fixed Expenses				$ 7.18
Total Specified Expenses				$80.57

Table 4B. Wheat Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Aug.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Graindrill w/ Cultipacker	2	Sept.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 5A. Fescue - Clover Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Fescue	lb.	15.00	.36	5.40
White Clover	lb.	3.00	2.85	8.55
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.75	2.30	4.03
Tractor and Equipment	Acre	1.00	5.21	5.21
Total Variable Expenses				$45.09
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.76	7.76
Total Fixed Expenses				$ 7.76
Total Specified Expenses				$52.85

Table 5B. Fescue - Clover Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Aug.	1	1.02	1.35	.35	.35
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Oct.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20

Table 5C. Fescue - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.00	2.85	2.85
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.95	2.30	2.19
Tractor and Equipment	Acre	1.00	2.46	2.46
Int. on Op. Capital	Acre	1.00	1.32	1.32
Total Variable Expenses				$30.72
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.43	3.43
Prorated Est. Cost	Acre	1.00	5.29	5.29
Int. on Est. Cost	Acre	1.00	2.38	2.38
Total Fixed Expenses				$11.10
Total Specified Expenses				$41.82

Table 5D. Fescue - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Mower	2	July	1	.74	1.11	.20	.20
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 6A. Fescue Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Fescue	lb.	20.00	.36	7.20
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	3.00	6.35	19.05
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.75	2.30	4.03
Tractor and Equipment	Acre	1.00	5.33	5.33
Total Variable Expenses				$52.91
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.98	7.98
Total Fixed Expenses				$ 7.98
Total Specified Expenses				$60.89

Table 6B. Fescue Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Aug.	1	1.02	1.35	.35	.35
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Graindrill w/ Cultipacker	2	Oct.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 6C. Fescue Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	3.00	6.35	19.05
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.70	2.30	1.61
Tractor and Equipment	Acre	1.00	1.58	1.58
Int. on Op. Capital	Acre	1.00	1.78	1.78
Total Variable Expenses				$41.32
Fixed Expenses				
Tractor and Equipment	Acre	1.00	2.21	2.21
Prorated Est. Cost	Acre	1.00	6.09	6.09
Int. on Est. Cost	Acre	1.00	2.74	2.74
Total Fixed Expenses				$11.04
Total Specified Expenses				$52.36

Table 6D. Fescue Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Mower	2	July	1	.74	1.11	.20	.20
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 7A. Corn Silage: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Corn	lb.	14.00	.72	10.08
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Atrazine	lb.	4.50	3.05	13.73
Labor	Hr.	5.15	2.30	11.85
Limestone	lb.	130.00	.02	2.60
Urea	lb.	130.00	.09	11.70
Tractor and Equipment	Acre	1.00	17.55	17.55
Int. on Op. Capital	Acre	1.00	5.58	5.58
Total Variable Expenses				$129.49
Fixed Expenses				
Tractor and Equipment	Acre	1.00	25.41	25.41
Total Fixed Expenses				$ 25.41
Total Specified Expenses				$154.90

Table 7B. Corn Silage: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Sept.	1	1.02	1.35	.35	.35
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Bedder	2	Apr.	1	.69	.90	.21	.21
Planter Pre-emerge	2	Apr.	1	.94	1.45	.25	.22
Cultivate Side-dress	2	Apr.	1	.92	1.54	.30	.25
Cultivate Post-emerge	2	May	1	1.14	1.56	.40	.35
Silage Harvestor	2	Aug.	1	5.08	7.68	.94	.94
Silage Wagon	2	Aug.	1	3.04	4.79	.94	.94
Silage Packer	2	Aug.	1	2.30	2.71	.94	.94

Table 8A. Sorghum Silage (Intermediate): Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum	lb.	8.00	.49	3.92
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	4.50	6.35	28.58
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Propazine	lb.	2.60	4.00	10.40
Dicamba	lb.	.25	8.65	2.16
Labor	Hr.	5.15	2.30	11.85
Limestone	lb.	150.00	.02	3.00
Urea	lb.	150.00	.09	13.50
Tractor and Equipment	Acre	1.00	17.55	17.55
Int. on Op. Capital	Acre	1.00	5.20	5.20
Total Variable Expenses		1.00		$120.81
Fixed Expenses				
Tractor and Equipment	Acre	1.00	25.41	25.41
Total Fixed Expenses				$ 25.41
Total Specified Expenses				$146.22

Table 8B. Sorghum Silage (Intermediate): Estimated labor and eqiupment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Sept.	1	1.02	1.35	.35	.35
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Disk Harrow	2	Mar.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Bedder	2	May	1	.69	.90	.21	.21
Planter Pre-emerge	2	May	1	.94	1.45	.25	.22
Cultivate Side-dress	2	June	1	.92	1.54	.30	.25
Cultivate Post-emerge	2	June	1	1.14	1.56	.40	.35
Silage Harvestor	2	Sept.	1	5.08	7.68	.94	.94
Silage Wagon	2	Sept.	1	3.04	4.79	.94	.94
Silage Packer	2	Sept.	1	2.30	2.71	.94	.94

Table 9A. Coastal Bermuda Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Coastal Sprigs	bu.	20.00	.75	15.00
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Simazine	lb.	2.00	4.06	8.12
2, 4-D	lb.	1.50	1.99	2.99
Labor	Hr.	2.35	2.30	5.41
Custom Sprigging	Acre	1.00	15.00	15.00
Tractor and Equipment	Acre	1.00	6.55	6.55
Total Variable Expenses				$102.12
Fixed Expenses				
Tractor and Equipment	Acre	1.00	7.02	7.02
Total Fixed Expenses				$ 7.02
Total Specified Expenses				$109.14

Table 9B. Coastal Bermuda Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Sprig Coastal	1	May	1	1.75	.14	.50	.50
Cultipacker	1	May	1	.57	1.12	.24	.24
Sprayer	1	May	1	.37	.43	.25	.18
Rotary Spreader	1	June	1	.42	.55	.25	.20

Table 9C. Coastal Bermuda Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D + dicamba	pts.	1.50	2.06	3.09
Labor	Hr.	1.25	2.30	2.88
Tractor and Equipment	Acre	1.00	2.00	2.00
Int. on Op. Capital	Acre	1.00	2.57	2.57
Total Variable Expenses				$59.59
Fixed Expensee				
Tractor and Equipment	Acre	1.00	2.51	2.51
Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Prorated Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$18.32
Total Specified Expenses				$77.91

Table 9D. Coastal Bermuda Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Sprayer	1	Apr.	1	.37	.43	.25	.18
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	Aug.	1	.37	.43	.25	.18

Table 9E. Coastal Bermuda - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	2.00	6.35	12.70
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D	lb.	1.00	1.99	1.99
Labor	Hr.	1.65	2.30	3.80
Tractor and Equipment	Acre	1.00	3.41	3.41
Int. on Op. Capital	Acre	1.00	2.16	2.16
Total Variable Expenses				$50.24
Fixed Expenses				
Tractor and Equipment	Acre	1.00	4.63	4.63
Other Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$20.44
Total Specified Expenses				$70.68

Table 9F. Coastal Bermuda - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	May	1	.37	.43	.25	.18

Table 9G. Coastal Bermuda - Ryegrass Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.50	5.50	8.25
Ammonium Nitrate	Cwt.	10.00	6.35	63.50
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
2, 4-D + dicamba	Pts.	1.50	2.06	3.09
Labor	Hr.	2.35	2.30	5.41
Tractor and Equipment	Acre	1.00	4.29	4.29
Int. on Op. Capital	Acre	1.00	5.19	5.19
Total Variable Expenses				$121.63
Fixed Expenses				
Tractor and Equipment	Acre	1.00	5.59	5.59
Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$ 21.40
Total Specified Expenses				$143.03

Table 9H. Coastal Bermuda - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Sprayer	1	Apr.	1	.37	.43	.25	.18
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Sprayer	1	July	1	.37	.43	.25	.18
Rotary Spreader	1	Sept.	1	.42	.55	.25	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 9I. Coastal Bermuda Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	2.00	5.50	11.00
Ammonium Nitrate	Cwt.	6.00	6.35	38.10
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	5.80	2.30	13.34
Tractor and Equipment	Acre	1.00	21.68	21.68
Int. on Op. Capital	Acre	1.00	4.17	4.17
Total Variable Expenses				$104.69
Fixed Expenses				
Tractor and Equipment	Acre	1.00	30.24	30.24
Other Prorated Est. Cost	Acre	1.00	10.90	10.90
Int. on Est. Cost	Acre	1.00	4.91	4.91
Total Fixed Expenses				$ 46.05
Total Specified Expenses				$150.74

Table 9J. Coastal Bermuda Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	4	1.68	2.20	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Bale Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	July	1	1.59	2.01	.40	.40
Hay Rake	1	July	2	.60	.78	.30	.30
Hay Baler	2	July	1	2.55	3.90	.40	.40
Bale Mover	2	July	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 10A. Sorghum Sudan Annual Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum Sudan	lb.	35.00	.28	9.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.55	2.30	3.57
Tractor and Equipment	Acre	1.00	4.58	4.58
Int. on Op. Capital	Acre	1.00	3.22	3.22
Total Variable Expenses				$74.82
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.97	6.97
Total Fixed Expenses				$ 6.97
Total Specified Expenses				$81.79

Table 10B. Sorghum Sudan Annual Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Graindrill w/ Cultipacker	2	Apr.	1	1.32	2.44	.30	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Spreader	1	Aug.	1	.42	.55	.25	.20

Table 10C. Sorghum Sudan Hay: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Sorghum Sudan	lb.	35.00	.28	9.80
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	5.80	2.30	5.93
Tractor and Equipment	Acre	1.00	21.68	21.68
Int. on Op. Capital	Acre	1.00	4.10	4.10
Total Variable Expenses				$ 95.16
Fixed Expenses				
Tractor and Equipment	Acre	1.00	30.24	30.24
Total Fixed Expenses				$ 30.24
Total Specified Expenses				$125.40

Table 10D. Sorghum Sudan Hay: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	4	1.68	2.20	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Bale Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	July	1	1.59	2.01	.40	.40
Hay Rake	1	July	2	.60	.78	.30	.30
Hay Baler	2	July	1	2.55	3.90	.40	.40
Bale Mover	2	July	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 11A. Dallisgrass Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Dallis (liveseed)	lb.	10.00	3.00	30.00
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	4.88	4.88
Int. on Op. Capital	Acre	1.00	3.56	3.56
Total Variable Expenses				$82.76
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.99	6.99
Total Fixed Expenses				$ 6.99
Total Specified Expenses				$89.75

Table 11B. Dallisgrass Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1976.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Section Harrow	1	Apr.	1	.15	.21	.10	.10
Tailgate Seeder	1	Apr.	1	.30	.33	.25	.20
Cultipacker	1	Apr.	1	.57	1.12	.24	.24
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 11C. Dallisgrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.90	2.30	2.07
Tractor and Equipment	Acre	1.00	2.32	2.32
Int. on Op. Capital	Acre	1.00	2.20	2.20
Total Variable Expenses				$51.14
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.32	3.32
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$16.34
Total Specified Expenses				$67.48

Table 11D. Dallisgrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20

Table 11E. Dallisgrass - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.15	2.30	2.65
Tractor and Equipment	Acre	1.00	2.62	2.62
Int. on Op. Capital	Acre	1.00	1.42	1.42
Total Variable Expenses				$32.87
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.65	3.65
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$16.67
Total Specified Expenses				$49.54

Table 11F. Dallisgrass - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	2.00

Table 11G. Dallisgrass - Ryegrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi,1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	7.00	6.35	44.45
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	2.95	2.30	6.79
Tractor and Equipment	Acre	1.00	4.61	4.61
Int. on Op. Capital	Acre	1.00	4.20	4.20
Total Variable Expenses				$ 97.45
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.40	6.40
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$ 19.42
Total Specified Expenses				$116.87

Table 11H. Dallisgrass - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.25
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 11I. Dallisgrass Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	4.35	2.30	10.01
Tractor and Equipment	Acre	1.00	16.26	16.26
Int. on Op. Capital	Acre	1.00	3.39	3.39
Total Variable Expenses				$ 78.71
Fixed Expenses				
Tractor and Equipment	Acre	1.00	22.68	22.68
Prorated Est. Cost	Acre	1.00	8.98	8.98
Int. on Est. Cost	Acre	1.00	4.04	4.04
Total Fixed Expenses				$ 35.70
Total Specified Expenses				$114.41

Table 11J. Dallisgrass Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	3	1.26	1.65	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Hay Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 12A. Common Bermuda Pasture Establishment: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Common Bermuda	lb.	5.00	1.68	8.40
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.50	6.35	28.58
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.90	2.30	4.37
Tractor and Equipment	Acre	1.00	4.88	4.88
Int. on Op. Capital	Acre	1.00	2.74	2.74
Total Variable Expenses				$63.52
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.99	6.99
Total Fixed Expenses				$ 6.99
Total Specified Expenses				$70.51

Table 12B. Common Bermuda Pasture Establishment: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Chisel Plow	2	Mar.	1	1.02	1.35	.35	.35
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Disk Harrow	2	Apr.	1	1.00	1.44	.24	.24
Section Harrow	1	Apr.	1	.15	.21	.10	.10
Tailgate Seeder	1	Apr.	1	.30	.33	.25	.20
Cultipacker	1	Apr.	1	.57	1.12	.24	.24
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 12C. Common Bermuda Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	.50	5.50	2.75
Ammonium Nitrate	Cwt.	4.00	6.35	25.40
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	.90	2.30	2.07
Tractor and Equipment	Acre	1.00	2.32	2.32
Int. on Op. Capital	Acre	1.00	2.00	2.00
Total Variable Expenses				$46.34
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.32	3.32
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$13.54
Total Specified Expenses				$59.88

Table 12D. Common Bermuda Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20

Table 12E. Common Bermuda - Clover Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
White Clover	lb.	1.50	2.85	4.28
Fertilizer				
Superphosphate	Cwt.	1.50	9.20	13.80
Muriate of Potash	Cwt.	1.00	5.50	5.50
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	1.15	2.30	2.65
Tractor and Equipment	Acre	1.00	2.62	2.62
Int. on Op. Capital	Acre	1.00	1.46	1.46
Total Variable Expenses				$32.91
Fixed Expenses				
Tractor and Equipment	Acre	1.00	3.65	3.65
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$13.87
Total Specified Expenses				$46.78

Table 12F. Common Bermuda - Clover Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Oct.	1	.42	.55	.25	.20
Rotary Mower	2	Oct.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	July	1	.42	.55	.25	.20

Table 12G. Common Bermuda - Ryegrass Pasture Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	8.00	6.35	50.80
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	2.00	2.30	4.60
Tractor and Equipment	Acre	1.00	4.61	4.61
Int. on Op. Capital	Acre	1.00	4.38	4.38
Total Variable Expenses				$101.79
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.40	6.40
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 15.51
Total Specified Expenses				$118.41

Table 12H. Common Bermuda - Ryegrass Pasture Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Tailgate Seeder	1	Oct.	1	.30	.33	.25	.20
Disk Harrow	2	Oct.	1	1.00	1.44	.24	.24
Section Harrow	1	Oct.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

Table 12I. Common Bermuda Hay Maintenance: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Fertilizer				
Superphosphate	Cwt.	1.00	9.20	9.20
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	5.00	6.35	31.75
Lime (spread)	Cwt.	6.60	.39	2.60
Labor	Hr.	4.35	2.30	10.01
Tractor and Equipment	Acre	1.00	16.26	16.26
Int. on Op. Capital	Acre	1.00	3.39	3.39
Total Variable Expenses				$ 78.71
Fixed Expenses				
Tractor and Equipment	Acre	1.00	22.68	22.68
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 32.90
Total Specified Expenses				$111.61

Table 12J. Common Bermuda Hay Maintenance: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.-Aug.	3	1.26	1.65	1.00	.80
Cutter-Cond.	1	June	1	1.59	2.01	.40	.40
Hay Rake	1	June	2	.60	.78	.30	.30
Hay Baler	2	June	1	2.55	3.90	.40	.40
Bale Mover	2	June	1	.26	.32	.10	.10
Cutter-Cond.	1	Aug.	1	1.59	2.01	.40	.40
Hay Rake	1	Aug.	2	.60	.78	.30	.30
Hay Baler	2	Aug.	1	2.55	3.90	.40	.40
Bale Mover	2	Aug.	1	.26	.32	.10	.10
Cutter-Cond.	1	Sept.	1	1.59	2.01	.40	.40
Hay Rake	1	Sept.	2	.60	.78	.30	.30
Hay Baler	2	Sept.	1	2.55	3.90	.40	.40
Bale Mover	2	Sept.	1	.26	.32	.10	.10

Table 12K. Common Bermuda - Early Seeded Ryegrass Pasture: Estimated cost per acre, Upper Coastal Plain of Mississippi, 1977.

Item	Unit	Quantity	Price Per Unit	Amount
Variable Expenses				
Seed				
Ryegrass	lb.	35.00	.18	6.30
Fertilizer				
Superphosphate	Cwt.	2.50	9.20	23.00
Muriate of Potash	Cwt.	1.00	5.50	5.50
Ammonium Nitrate	Cwt.	9.00	6.35	57.15
Lime (spread)	Cwt.	6.60	.39	2.60
Herbicides				
Paraquat	lb.	.25	19.98	5.00
Labor	Hr.	2.25	2.30	5.18
Tractor and Equipment	Acre	1.00	4.98	4.98
Int. on Op. Capital	Acre	1.00	4.94	4.94
Total Variable Expenses				$114.65
Fixed Expenses				
Tractor and Equipment	Acre	1.00	6.83	6.83
Prorated Est. Cost	Acre	1.00	7.05	7.05
Int. on Est. Cost	Acre	1.00	3.17	3.17
Total Fixed Expenses				$ 15.49
Total Specified Expenses				$131.70

Table 12L. Common Bermuda - Early Seeded Ryegrass Pasture: Estimated labor and equipment requirements and cost per acre, by operation, Upper Coastal Plain of Mississippi, 1977.

Operation	Size	Period	Times Over	Variable Cost per Acre	Fixed Cost per Acre	Man Hrs/ Acre	Eq. Hrs/ Acre
Rotary Spreader	1	Apr.	1	.42	.55	.25	.20
Rotary Mower	2	June	1	.74	1.11	.20	.20
Rotary Spreader	1	June	1	.42	.55	.25	.20
Rotary Mower	2	Aug.	1	.74	1.11	.20	.20
Sprayer	1	Sept.	1	.37	.43	.25	.20
Tailgate Seeder	1	Sept.	1	.30	.33	.25	.20
Disk Harrow	2	Sept.	1	1.00	1.44	.24	.24
Section Harrow	1	Sept.	1	.15	.21	.10	.10
Rotary Spreader	1	Dec.	1	.42	.55	.25	.20
Rotary Spreader	1	Mar.	1	.42	.55	.25	.20

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In conformity with Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973, Dr. T. K. Martin, Vice President, 610 Allen Hall, P. O. Drawer J, Mississippi State, Mississippi 39762, office telephone number 325-3221, has been designated as the responsible employee to coordinate efforts to carry out responsibilities and make investigation of complaints relating to nondiscrimination.

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